Undergraduate

Calendar

1996 - 1997

Concordia
UNIVERSITY

University Mailing Addresses:

Sir George Williams Campus
1455 de Maisonneuve Blvd. W.
Montréal, Québec
H3G 1M8

Loyola Campus
7141 Sherbrooke St. W.
Montréal, Québec
H4B 1R6

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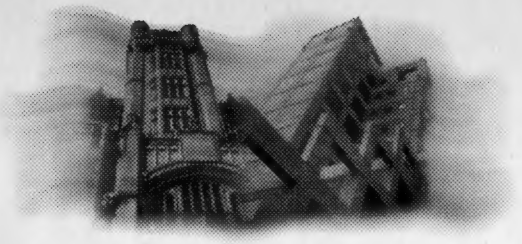

undergraduate calendar

CONCORDIA UNIVERSITY'S MISSION STATEMENT

Concordia is an urban university which is responsive to the needs of a diverse student population as well as to the bilingual and multicultural environment in which it resides. It is a welcoming community where values of equality, non-discrimination and tolerance of diversity are appreciated and actively promoted. Furthermore, Concordia is committed to responsible and innovative leadership in fulfilling the mission of universities to develop and disseminate knowledge and values and to act as a social critic. The University seeks to achieve this end by offering its students inclusive and accessible academic programmes which stress a broad-based, interdisciplinary approach to learning, as well as by a dedication to superior teaching supported by the best possible research, scholarship, creative activity and service to society. Through these means, the University prepares its graduates, at all levels, to live as informed and responsibly critical citizens who are committed to learning and to the spirit of enquiry.

1996 - 1997

This is the only official listing of undergraduate courses offered at Concordia University.

Not all courses listed in this Calendar are offered this year. Students are advised to consult the Undergraduate Class Schedule for a timetable of courses offered.

For information concerning graduate programmes, contact the School of Graduate Studies — (514) 848-3800. The office is located at 2145 Mackay Street near the Hall Building.

The Senate and the Board of Governors of the University reserve the right to make changes in this Calendar without prior notice.

Concordia University is a totally smoke free environment as of January 1, 1993. (Policy Manual C SR-3) Effective January 1996, offenders will be fined $25 per infraction.

Copies of the Calendar are available at Concordia bookstores.

PRICE: $5.00 plus mailing and handling

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Concordia
UNIVERSITY

Concordia University is one of the largest urban universities in Canada. It has two campuses - one in downtown Montréal (Sir George Williams), the other in a residential setting in the city's west end (Loyola).

The University has long promoted accessibility, innovation and an interdisciplinary approach to learning as its fundamental characteristics. As an urban university, it is also responsive to Montréal's bilingual and multicultural environment, and has a strong tradition in part-time education.

Approximately 91% of Concordia's students are Quebecers; 5% come from other Canadian provinces and the remaining 4% are International students. Approximately 14% of Concordia students list French as their mother tongue.

More than 4,000 students a year are granted degrees at the graduate and undergraduate levels. Over 500 students earn scholarships and fellowships.

Concordia employs about 3,000 people, both full-time and part-time, including 847 full-time professors, 879 part-time instructors, and 32 professional librarians. Among the part-time instructors is a large number of professionals drawn from the artistic community and the business world.

The value of grants and contracts allotted to Concordia researchers has increased by more than 120% since 1982. Particularly active areas of research are Psychology, Electrical Engineering, Mechanical Engineering, and Computer Science. Other research strengths are Building Studies, Transportation Engineering, Cell and Molecular Biology, Behavioural Neurobiology, Human Development and Management Studies.

Concordia recognizes the increasing importance of international academic relations and it operates a Centre for International Academic Cooperation to encourage, monitor and co-ordinate the University's international activities. During the past decade, Concordia professors have travelled to more than 100 countries, and Concordia continues to play host to visiting students and professors from every corner of the globe. Formal linkages have been established with universities in Brazil, the People's Republic of China, France, the Federal Republic of Germany, Hong Kong, India, Israel, Japan, the Netherlands, Poland, Trinidad and Tobago, the United States and Zimbabwe. Research and study programmes have also been held in Costa Rica, Great Britain, Greece, and Italy, among others.

The University holds the distinction of being the first in the western world to establish a joint doctoral programme with a university in The People's Republic of China, and Concordia is still active in that country. Formal exchange programmes have been established with eight of the PRC's leading academic institutions. As a consequence, Concordia professors now travel to China to teach PhD courses in Civil Engineering, Computer Science, and a growing array of other disciplines in the arts, sciences and engineering.

Concordia is the only English-language University in Québec with a Co-operative Education programme, a process by which academic study terms are alternated with work terms in business and industry to give students practical, on-the-job experience. The areas of work experience included in the Concordia programme are Accountancy, Building Engineering, Chemistry, Computer Science, Economics, French Translation, Management Information Systems (MIS), Mathematics, and Physics.

Established in 1974 with the merger of Loyola College and Sir George Williams University, Concordia offers more than 160 graduate and undergraduate programmes in four Faculties (Arts and Science, Commerce and Administration, Engineering and Computer Science, and Fine Arts) and the School of Graduate Studies. At the undergraduate level, the University offers BAdmin, BA, BComm, BCompSc, BEd, BEng, BFA, and BSc degrees.

At the graduate level, the University awards MA, MSc, MTM, MBA, MASc, MCompSc, MEng, and MFA degrees.

Programmes leading to the PhD degree are offered in Administration, Art Education, Biology, Building Studies, Chemistry, Civil Engineering, Communication, Computer Science, Economics,

Educational Technology, Electrical and Computer Engineering, History, Humanities, Mechanical Engineering, Mathematics, Physics, Psychology, Religion, and in Special Individualized programmes.

The University also offers graduate diploma programmes in Accountancy, Adult Education, Advanced Music Performance Studies, Art Education, Art Therapy, Communication Studies, Computer Science, Early Childhood Education, Economics, Ecotoxicology, Institutional Administration, Instructional Technology, Journalism, Library Studies, Philosophy, Sports Administration, Teaching of Mathematics, Theological, Religious and Ethical Studies, and Translation.

Enrolment in the 1995-96 Academic Year was:

Full-time undergraduate	11,105	Full-time graduate	2,222
Part-time undergraduate	8,371	Part-time graduate	993
Other	2,153		

In addition to the programmes described in this Calendar and in the School of Graduate Studies Calendar, the University offers a wide range of summer courses and programmes on both campuses. A separate publication listing summer offerings is published annually.

Concordia is on the Internet with a web site that allows visitors to learn all about the University. Options allow the user to access academic information, go on a tour of the libraries, locate campus activities, find information for students and about administrative services, search through the directory and sign the guestbook. Concordia's web site address is http://www.concordia.ca.

Service Centre
Located in the J.W. McConnell Library Building, the Birks Student Service Centre is a one-stop service centre that provides integrated front-line Admissions, Student Accounts as well as all registrarial services. In addition, the Centre maintains a self-service touch-screen terminal for reports of standing. Other self-service applications available to students include CARL — Concordia Automated Response Line, a bilingual touch-tone system for grades and registration.

The Birks Student Service Centre also offers Campus Tours services. These include not only information on academic programmes and university activities but also self-guided, general, and customized visits of both campuses.

Libraries
Three years ago, Concordia consolidated all of its library holdings in two locations: the Georges P. Vanier Library, on the Loyola Campus; and the R. Howard Webster Library, a major new facility on the Sir George Williams Campus. Both the Vanier and Webster libraries house materials on the humanities, science and technology, the social sciences, fine arts, commerce, engineering and computer science.

The collection is composed of 1.6 million items, including books, periodicals, government publications, technical reports, microforms, non-print (audio-visual) material and special collections.

Students may use libraries on both campuses. Reference services are provided to assist in identifying and locating materials. If these are not available at Concordia they may be consulted in other Montréal libraries or borrowed through the Interlibrary Loans service, which gives access to items from virtually any library in the world.

Students wishing more complete information on Concordia's libraries are invited to pick-up hand-outs available in both libraries or consult the Library's World Wide Web Home Page.

Computing Services
Computing Services provides resources and services to students, faculty, researchers, staff, the libraries, and all administrative units at the University. Facilities include a high-speed data communications network linking Concordia to regional, national and international communities, a number of mainframe-class computers, several super-mini computers, almost 200 public access personal computers and work stations, more than 100 timesharing terminals, vector processing, graphics and word-processing facilities. A comprehensive software library is available including numerical analysis routines, statistical processing packages, data-base products, simulation languages, graphics support, all widely used computer languages, text processing, on-line news services and many other general purpose utilities. Computing Services provides around the clock computer access. Consulting services are available during normal University operating hours. Newsletters and hand-outs outlining services and facilities in more detail are available at the service areas located on each campus.

Art Galleries
The Leonard and Bina Ellen Art Gallery is located in the J.W. McConnell Building. One of the major small museums in Canada, the Gallery features a year-round programme of exhibitions of Canadian art in all visual media. Most presentations are organized by the Gallery's own staff, but some shows are brought in from other art institutions across Canada.

The Gallery has a permanent collection of Canadian art with a special emphasis on modern and contemporary work. The collection includes painting, sculpture, works on paper, mixed media and photography. Selections from the collection are frequently included in the Gallery's exhibitions. Illustrated bilingual publications accompany the majority of the exhibitions.

The V.A.V. Gallery, devoted to work by undergraduate students in the visual arts programmes of the Faculty of Fine Arts, is located on the main floor of the Visual Arts Building at the corner of René-Lévesque Boulevard and Crescent Street. In the Bourget Building on Mountain Street, exhibitions of work by Fine Arts graduate students are presented in the gallery on the main floor.

Theatre, Music and Arts Studios
The Faculty of Fine Arts operates several performing arts facilities on the Loyola Campus, including a state-of-the-art concert hall, seating 600, and the Joseph P. Cazalet Studio, a flexible teaching facility serving theatre students. Dramatic productions on the Sir George Williams Campus are staged in the D.B. Clarke Theatre, a well equipped 380-seat facility in the Henry F. Hall Building.

Specialized studios and workshops for undergraduate and graduate students in the visual arts are located in the Visual Arts Building and the MF Annex.

Music students use ensemble rooms and practice studios in the Refectory Building on the Loyola Campus. Performances are given in the large ensemble rooms and in the Concert Hall. Dance and theatre students use studios in the TJ Annex, located on the Loyola Campus.

Audio Visual Facilities
The Audio Visual Department operates three equipment depots, primarily responsible for media services in teaching areas, but also providing over-the-counter sales of materials and loan of equipment to students, faculty and staff.

The facilities in the Learning Laboratories, media workshops (AVISTAs), television and sound studios, preview and presentation rooms, cinemas and media library, are also available to students, faculty and staff, on an individual basis, for self-instruction, training and the preparation of presentation materials.

Professional production services and consultation are available in the areas of video, sound, graphics, photography, computer controlled presentation and distance education.

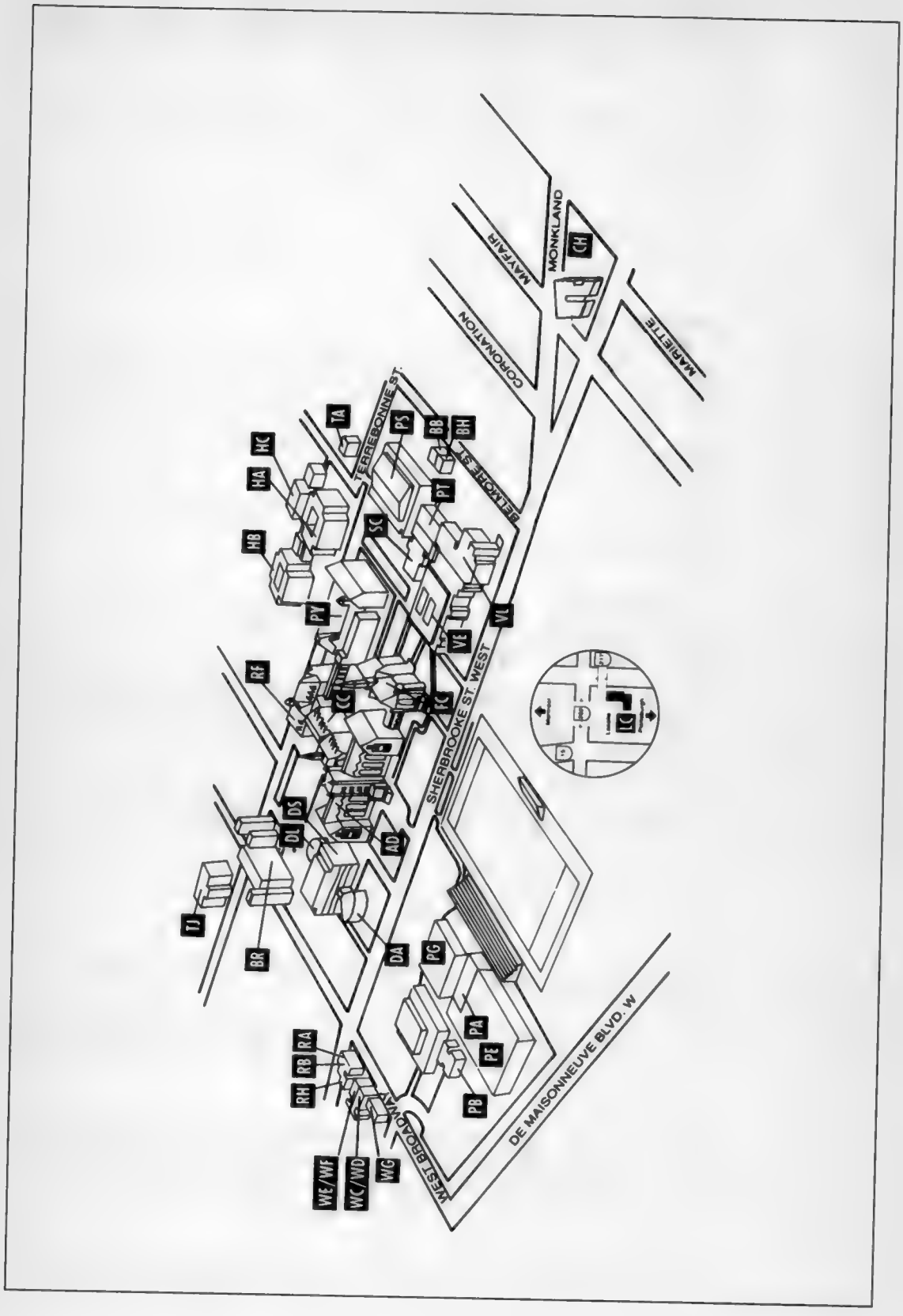
The University is a member of the Québec educational television network, CANAL, which broadcasts a variety of credit and non-credit courses, lectures, seminars and interviews on UHF Channel 29 in the Montréal region and on Cable 23 in other areas of Québec.

Film
The Montréal Conservatory of Cinematographic Art, established in 1968, houses an important collection of films of historic and cultural value.

The University offers regular programmes of public film screenings in the cinemas on both campuses sponsored by the Conservatory, the Department of Communication Studies and other groups from the University community.

Athletic Facilities
The University offers extensive programmes for participation in intramural and intercollegiate sports. Facilities include several full-sized playing fields and a fully-equipped physical education centre on the Loyola Campus. The centre includes a gymnasium and an ice arena, as well as training and sports medicine areas, an activities room and a weight-training room.

The Lacolle Centre for Educational Innovation
Concordia also provides facilities for personal and professional development for its students, faculty, staff and members of the public. Workshops are conducted by the Lacolle Centre for Educational Innovation – on both campuses and in a country setting at a 150-year-old farmhouse on 20 acres of land near Lacolle, Québec, about 40 miles south of Montréal.


MONKLAND
MATHEAR
CORONATION
MARIETTE
TERREBONNE ST.
BELMORE ST.
SHERBROOKE ST. WEST
WEST BROADWAY
DE MAISONNEUVE BLVD. W
CH
TA
PS
BB
BH
HC
HA
HB
PT
SC
PY
VL
VE
RF
CC
EC
LC
DS
DJ
AD
TJ
BR
DA
PG
PA
PE
PB
RA
RB
RH
WE/WF
WC/WD
WG

Loyola Campus — (H4B 1R6)

AD - 7141 Sherbrooke W.
(Administration Building)
Advocacy and Support Services, AD 130
Audio-Visual Department, AD 105
Centre for Mature Students, AD 424
Dean of Students, AD 121
Faculty of Arts and Science Office, AD 324
Legal Information Services, AD 130
Off-Campus Education and Distance Learning, AD 420
Services for Disabled Students, AD 130
Vice-Rector, Academic, AD 232

BB - 3502 Belmore Ave
BH - 3500 Belmore Ave
(Belmore House)
Garderie des P'tits Profs - Daycare, BB

BR - 3475 West Broadway
(Bryan Building)
Communication Studies, BR 111
Journalism, BR 305-4

CC - 7141 Sherbrooke W.
(Central Building)
Alumni, CC 324
Audio-Visual Language Labs, CC 203
Computer Centre, CC 206
Guadagni Lounge, CC 4th Floor
Printing Services - Copy Centre, CC 201

CH - 6935 Sherbrooke W.
(Centennial Building)
Economics, 3rd Floor
Health Services, CH 101
Modern Languages and Linguistics, CH 131

DA - 7141 Sherbrooke W.
(Drummond Auditorium)
Exercise Science, DA 202

DL - 7141 Sherbrooke W.
Russell Breen Senate Chamber

DS - 7141 Sherbrooke W.
(Drummond Science)
Geology, DS 206
Sports Medicine Centre, DS 101

FC - 7141 Sherbrooke W.
(F.C. Smith Auditorium)
Auditorium/Theatre
Chapel

HA - 7141 Sherbrooke W.
(Hingston Hall - A)
Bookstore, HA 165
Residences and Residence Office, HA 156

HB - 7141 Sherbrooke W.
(Hingston Hall - B)
Classics, HB 102
English, HB 306
Études françaises, HB 429
Leisure Studies, HB 131
Mathematics and Statistics, HB 234
Theological Studies, HB 314

HC - 7141 Sherbrooke W.
(Hingston Hall - C)
Cafeteria

LC - Lacolle, Québec
(Lacolle Centre)

PA - 7200 Sherbrooke W.
(Athletics Complex)
Recreation and Athletics, PA 104

PB - 7200 Sherbrooke W.
(Athletics Boiler Room)

PE - 7200 Sherbrooke W.
(Athletics Rink)

PG - 7200 Sherbrooke W.
(Athletics Gym)

PS - 7141 Sherbrooke W.
(Physical Services Building)

PT - 7141 Sherbrooke W.
(Concert Hall)

PY - 7141 Sherbrooke W.
(Psychology Building)
Psychology, PY 146

RA - 7300 Sherbrooke W.
RB - 7302 Sherbrooke W.
Lonergan University College, RB 203

RF - 7141 Sherbrooke W.
(Refectory Building)
Music, RF 304

RH - 7312 Sherbrooke W.
Institute for Co-operative Education, RH 04

SC - 7141 Sherbrooke W.
(Campus Centre)
Cafeteria, SC
Concordia Student Union - CSU, SC 03

TA - 7079 Terrebonne (Annex TA)
Library Studies, TA 205

TJ - 7315 Terrebonne (Annex TJ)
Contemporary Dance, TJ 307
Theatre, TJ 102

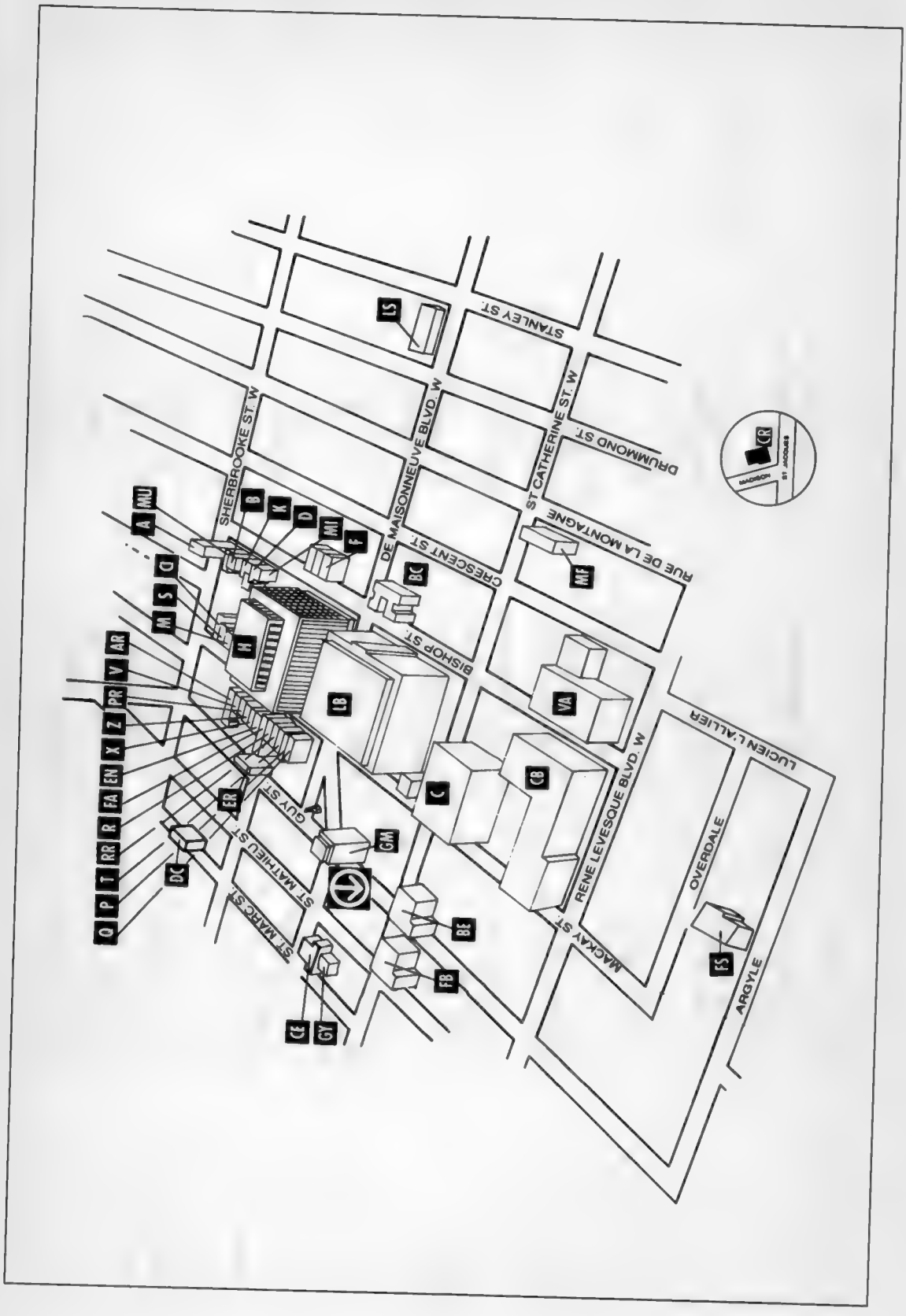
VE - 7141 Sherbrooke W.
(Vanier Extension)
History, VE 323
Philosophy, VE 227
Political Science, VE 327
Sociology and Anthropology, VE 223

VL - 7141 Sherbrooke W.
(Vanier Library)

WC/WD - 2490/2492 West Broadway
Counselling and Development, WC 101

WE/WF - 2492/2496 West Broadway
(Belmore House)
Campus Ministry, WF

WG - 2480 West Broadway
Lacolle Centre for Educational Innovation, WG 204
Loyola Peace Institute, WG 103


STANLEY ST.
SHERBROOKE ST. W
DE MAISONNEUVE BLVD. W
ST CATHERINE ST. W
DRUMMOND ST.
RUE DE LA MONTAGNE
CRESCENT ST.
BISHOP ST.
GUY ST.
ST MATHIEU ST.
ST MARC ST.
RENE LEVESQUE BLVD. W
MACKAY ST.
LUCIEN L'ALLIER
OVERDALE
ARGYLE
LS
A
MU
B
K
D
MI
F
CI
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M
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BC
MF
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AR
PR
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EN
EA
R
RR
T
P
Q
LB
VA
C
CB
ER
GM
DC
BE
FB
CE
GY
FS
CR

Sir George Williams Campus — (H3G 1M8)

A - 1420 Sherbrooke W.
Human Resources Department, A 400

AR - 2130 Mackay
Québec Public Interest Research Group - QPIRG, AR 101

B - 2160 Bishop
Mechanical Engineering

BC - 1463 Bishop
(Bishop Court Administration)
Alumni, BC 101
Public Relations, BC 115
Rector's Office, BC 201
Secretary General, BC 124
University Advancement, BC 319
Vice-Rector, Inst. Relations & Finance, BC 301

BE - 1257 Guy
Centre for Building Studies, BE 341

C - 1440 St. Catherine W.

CB - 1425 René-Lévesque Blvd. W.
Engineering
Fine Arts

CE - 1822 de Maisonneuve Blvd. W.
(Victoria School)
Centre for Continuing Education, CE 1st Floor

CI - 2149 MacKay
School of Community and Public Affairs, CI 101

CR - 6277 St. Jacques W.
(CONCAVE Research Centre)

D - 2140 Bishop
Political Science, D 103

DC - 2305 St. Marc (Daycare)
Daycare, DC 1st Floor

EN - 2070 Mackay
Counselling & Development, EN 106
TESL Centre, EN 209

ER - 2155 Guy
Civil Engineering, ER 303
Health Services, ER 407

F - 2085 Bishop
Applied Social Science, F 104

FA - 2060 Mackay
Religion, FA 101

FB - 1250 Guy (Faubourg)
Aviation M.B.A., FB 816

FS - 1438 Overdale
Fine Arts

GM - 1550 de Maisonneuve Blvd. W.
Accountancy, GM 600-13
Commerce and Administration Students' Associations - CASA, GM 211-14
Decision Sciences and Management Information Systems, GM 209-9
Economics, GM 302-7
Faculty of Commerce and Administration Office, GM 403
Finance, GM 503-55
International Business, GM 600-43
Management, GM 503-37
Marketing, GM 300-31
Payroll, GM 701
Treasurer's Office, GM 700
Vice-Rector, Services, GM 1100

GY - 1822 de Maisonneuve Blvd. W.
(Victoria School Gym)
Athletics, GY 060
Centre for Continuing Education, 1st Floor

H - 1455 de Maisonneuve Blvd. W.
(Hall Building)
Audio-Visual Department, H 339
Audio-Visual Language Labs, H 525
Biology, H 1260-6
Cafeteria, H 747
CANAL Education, H 339-6
Chemistry and Biochemistry, H 1139
Computer Centre, H 925
Concordia Student Union - CSU, H 637
Counselling and Development, H 440
Dean of Students, H 653
Electrical and Computer Engineering, H 961
Engineering and Computer Science Students' Associations - ECA, H 880-10
International Student Office, H 653
Mechanical Engineering, H 549
Physics, H 841
Printing Services - Copy Centre, H 118
Services for Disabled Students, H 580
Student Accounts Office, H 541
Theatre - D.B. Clarke, H 0050-7

K - 2150 Bishop
Sexual Harassment, K 110

LB - 1400 de Maisonneuve Blvd. W.
(J.W. McConnell/Webster Library)
Adult Education, LB 553-2
Art Gallery, LB 165
Bookstore, LB 018
Centre for Mature Students, LB 517
Computer Science, LB 901
Computing Services, LB 800
Co-op Concordia - Computer Store, LB 115
Education, LB 579
English Department, LB 501
Études françaises, LB 631-10
Faculty of Engineering and Computer Science Office, LB 1001
Geography, LB 641
History, LB 601
Library , LB 203
Office of the Registrar, LB 700
- Admissions, LB 700
- Registration and Examinations, LB 700

Mathematics and Statistics, LB 525
Sociology and Anthropology, LB 681
Science and Human Affairs, LB 641
Student Service Centre:
- Admissions, LB 185
- Financial Aid and Awards, LB 085
- Registrar's Services, LB 185
- Student Accounts, LB 185

Urban Studies, LB 641

LS - 2015 Drummond (Classrooms)

M - 2135 Mackay

MF - 1230 Mountain
(Académie Bourgot)
Fine Arts

MI - 2130 Bishop

MU - 2170 Bishop
Simone de Beauvoir Institute/ Women's Studies, MU 202

P - 2020 Mackay
Women's Centre, P 03

PR - 2100 Mackay
Ombuds Office, PR 100
Philosophy, PR 202

Q - 2010 Mackay
Students' Associations

R - 2050 Mackay

RR - 2040 Mackay
Liberal Arts College, RR 103

S - 2145 Mackay
School of Graduate Studies, S 205

T - 2030 Mackay

V - 2110 Mackay
Credit Union, V 103
Centre for Native Education, V 311

VA - 1395 René-Lévesque Blvd. W.
(Visual Arts Building)
Art Education, VA 209-1
Art History, VA 432
Art Supply Store, VA 109
Art Therapy, VA 264
Cinema, VA 259
Design Art, VA 244
Faculty of Fine Arts Office, VA 250
Interdisciplinary Studies, VA 219
Painting and Drawing, VA 238
Printmaking and Photography, VA 248
Sculpture, Ceramics and Fibres, VA 262

X - 2080 Mackay
Science College, X 105

Z - 2090 Mackay
Campus Ministry
Peer Helper Centre

gender neutral degree nomenclature

In February 1992, Concordia University adopted a policy on degree nomenclature that seeks to provide students with the opportunity to graduate with gender neutral degree titles. This policy stipulates that students are entitled to receive their degrees in either the traditional or new degree nomenclature. The new names for degrees are: Baccalaureate, Magisteriate, and Doctorate. The traditional nomenclature is: Bachelor, Master, and Doctor.

The decision to implement new titles arose from the belief that some of the structures that presently exist at Concordia and other universities reflect a period when women were not accepted as full participants in the academic community. The University felt it was time to offer degree titles that do not refer explicitly or implicitly only to men.

As of June 1994, students may choose to graduate with degree titles that are gender neutral and refer to the diplomas themselves. Graduates who have previously been awarded a Concordia degree will be able to request that their degree be re-issued in the new nomenclature.

This policy will be reviewed in five years.

Concordia University

academic calendar

section 11

11 ACADEMIC CALENDAR

The Academic Calendar is subject to change. Updated information will be available from the Birks Student Service Centre. For dates pertaining to registration and final examinations please consult the relevant class schedule or the Birks Student Service Centre. For financial deadlines see §15.
Concordia University recognizes and respects the religious beliefs, observances and obligations of all faiths. For the information of instructors planning assignment deadlines, class tests, etc., and for persons scheduling meetings, the dates of Holy Days of major religions are available at the Birks Student Service Centre.
Deadlines falling on weekends or holidays will be extended to the next working day.

Regular Session — 1996-1997

1996

MARCH	Friday, March 1	Last day for application to undergraduate programmes — Full-time Regular Session 1996-97.
	Wednesday, March 6	Last day for academic withdrawal from two-term and winter-term courses.
	Friday, March 8	University Writing Test.
APRIL	Wednesday, April 3	Last day for instructor-scheduled tests or examinations.
	Friday, April 5	University closed (see April 11, 1996).
	Monday, April 8	University closed (see April 11, 1996).
	Wednesday, April 10	Last day of classes — Regular Session 1995-96.
	Thursday, April 11	Make-up day for classes scheduled on April 5 and 8 — Instructors must contact Scheduling Office to book a classroom.
	Friday, April 12	Examinations begin.
	Monday, April 29	Examinations end.
	Tuesday, April 30	See below for Summer Session 1996 Calendar.
MAY	Wednesday, May 15	Last day to apply for late completion of courses ending in April 1996.
	Friday, May 17	University Writing Test.
	Thursday, May 30	Last day for submission of late-completion work for courses ending in April 1996 (application deadline May 15).
JUNE	Saturday, June 15	Last day to apply for replacement and supplemental examinations for courses taken during the Regular Session 1995-96.
	Saturday, June 15	Last day to apply for re-evaluation of courses ending in April 1996.
		Spring Convocations:
	Monday, June 17	Faculty of Arts and Science
	Tuesday, June 18	Faculty of Commerce and Administration
	Thursday, June 20	Faculty of Engineering and Computer Science
	Thursday, June 20	Faculty of Fine Arts.
JULY	Monday, July 15	Last day to apply for degrees, diplomas and certificates for Fall 1996 graduation.

AUGUST	Wednesday, August 21	Replacement and supplemental examinations begin — Regular Session 1995-96.
	Tuesday, August 27	Replacement and supplemental examinations end — Regular Session 1995-96.
SEPTEMBER	Sunday, September 1	Last day to apply for late completion of courses taken during the Summer Session 1996.
	Monday, September 2	Labour Day — University closed.
	Wednesday, September 4	Classes begin — Day and Evening Regular Session.
	Thursday, September 12	Last day to add two-term and fall-term courses.
	Sunday, September 15	Last day for submission of late-completion work for Summer Session 1996 courses (application deadline September 1).
	Wednesday, September 18	Deadline for withdrawal with tuition refund from two-term and fall-term courses.
	Monday, September 23	Last day to apply for replacement and supplemental examinations for courses taken during the Summer Session 1996.
OCTOBER	Tuesday, October 1	Last day to apply for re-evaluation of courses taken during the Summer Session 1996.
	Saturday, October 5	Replacement and supplemental examinations for Summer Session 1996 courses.
	Friday, October 11	University Writing Test.
	Monday, October 14	Thanksgiving Day — University closed (see December 5, 1996).
	Tuesday, October 15	Last day for application to undergraduate programmes — Winter Term 1997.
	Tuesday, October 29	Last day for academic withdrawal from fall-term courses.
NOVEMBER	Friday, November 22	Fall Convocation.
	Wednesday, November 27	Last day for instructor-scheduled tests or examinations.
DECEMBER	Wednesday, December 4	Last day of classes — Fall Term.
	Thursday, December 5	Make-up day for classes scheduled on Monday October 14 — Instructors must contact Scheduling Office to book a classroom.
	Friday, December 6	National Day of Remembrance and Action on Violence Against Women — University will remain open.
	Friday, December 6	Examinations begin.
	Sunday, December 22	Examinations end.

1997

JANUARY	Monday, January 6	Classes begin — Day and Evening Winter Term.
	Tuesday, January 14	Last day to add winter-term courses.
	Wednesday, January 15	Last day to apply for degrees, diplomas and certificates for Spring 1997 graduation.
	Friday, January 17	University Writing Test.

	Monday, January 20	Deadline for withdrawal with tuition refund from winter-term courses.
FEBRUARY	Saturday, February 1	Last day to apply for replacement and supplemental examinations for courses ending in December 1996 (graduating students only).
	Saturday, February 1	Last day to apply for re-evaluation of courses ending in December 1996.
	Saturday, February 1	Last day to apply for late completion of courses ending in December 1996.
	Saturday, February 8	Replacement and supplemental examinations for courses ending in December 1996 (graduating students only).
	Saturday, February 15	Last day for submission of late-completion work for courses ending in December 1996 (application deadline February 1).
	Monday, February 17	Mid-term break begins.
	Friday, February 21	Rector's Holiday — University closed.
	Friday, February 21	Mid-term break ends.
MARCH	Saturday, March 1	Last day for application to undergraduate programmes — Full-time Regular Session 1997-98.
	Friday, March 7	Last day for academic withdrawal from two-term and winter-term courses.
	Friday, March 7	University Writing Test.
	Friday, March 28	University closed (see April 15, 1997).
	Monday, March 31	University closed (see April 15, 1997).
APRIL	Monday, April 7	Last day for instructor-scheduled tests or examinations.
	Monday, April 14	Last day of classes — Regular Session 1996-97.
	Tuesday, April 15	Make-up day for classes scheduled on March 28 and 31 — Instructors must contact Scheduling Office to book a classroom.
	Wednesday, April 16	Examinations begin.
MAY	Tuesday, May 6	Examinations end.
	Thursday, May 15	Last day to apply for late completion of courses ending in April 1997.
	Friday, May 16	University Writing Test.
	Friday, May 30	Last day for submission of late-completion work for courses ending in April 1997 (application deadline May 15).
JUNE	Sunday, June 15	Last day to apply for replacement and supplemental examinations for courses taken during the Regular Session 1996-97.
	Sunday, June 15	Last day to apply for re-evaluation of courses ending in April 1997.
	T.B.A.	Spring Convocations.

Summer Session — 1996 (Day and Evening Classes)

NOTE: These are the standard term dates but there are some courses offered on different schedules. Please consult the 1996-97 Undergraduate Class Schedule for details.

APRIL	Tuesday, April 30	Two-term and first-term Summer Session begins.
MAY	Monday, May 20	Victoria Day — University closed.
JUNE	Monday, June 17	Last day of classes — First-term Summer Session.
	Tuesday, June 18	Examinations begin — Mid-term and first-term finals.
	Sunday, June 23	Examinations end.
	Monday, June 24	Fête Nationale — University closed.
	Tuesday, June 25	Classes begin — Second-term Summer Session.
JULY	Monday, July 1	Canada Day — University Closed.
AUGUST	Tuesday, August 6	Last day of classes for two-term and second-term Summer Session.
	Tuesday, August 13	Examinations begin — Two-term and second-term finals.
	Sunday, August 18	Examinations end.

Special Six-Week Summer Session — 1996 (Day Classes Only)

JULY	Tuesday, July 2	Session begins.
AUGUST	Monday, August 12	Session ends.

administration

section

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12 ADMINISTRATION

The following information was updated as of October 1, 1995.

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Annette Teffeteller
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Ann Kerby
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2 undergraduate student members (T.B.A.)

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Roger Côté, BA

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ASSISTANT TO THE SECRETARY-GENERAL:
Amely Jurgenliemk, BA

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John Noonan, BSc

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Nancy Marrelli, BA

DIRECTOR, TRANSLATION SERVICES:
Ghislaine Daoust, BA, MA

ACTING CODE ADMINISTRATOR:
Marie-Andrée Robitaille, BA

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admission regulations

13.1 ***ADMISSION TO CONCORDIA UNIVERSITY***

13.2 ***DEFINITIONS***

13.3 ***ADMISSION REQUIREMENTS***
- **13.3.1** Applicants from Québec Institutions
- **13.3.2** Applicants from Other Canadian Provinces
- **13.3.3** Transfers from Other Universities
- **13.3.4** Transfers from Other Post-Secondary Institutions
- **13.3.5** Pro-Tanto Credits and Exemptions
- **13.3.6** Applicants from Outside Canada

13.4 ***LANGUAGE PROFICIENCY***

13.5 ***APPLYING FOR ADMISSION***
- **13.5.1** Application Fee
- **13.5.2** Deadlines

13.6 ***SPECIAL ADMISSIONS***
- **13.6.1** Mature Students
- **13.6.2** Visiting Students
- **13.6.3** Independent Students

13.7 ***REQUIRED DOCUMENTS***
- **13.7.1** All Applicants
- **13.7.2** CEGEP Applicants

13.8 ***SELECTION PROCESS AND NOTIFICATION***
- **13.8.1** Early Conditional Admission
- **13.8.2** Admission Deposit
- **13.8.3** Registration

section 13

13 ADMISSION REGULATIONS

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CRAIG BROWN
CHRISTINE CHAN
ASSUNTA FARGNOLI
EDITH MALIK
JOYCELYN WEATHERSPOON-JONES
Admissions Counsellor - International Students
CATHERINE HIRST

Assistant Registrar
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LINDA MACDONALD
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Assistant Registrar
PETER REGIMBALD
Admissions Counsellors - Commerce and Administration
LINDA HEALEY
GLEN THOMAS
Admissions Counsellors - Fine Arts
VIVIEN FREEDMAN
JO-ANN OBERG-MÜLLER

Location
Sir George Williams Campus
J.W. McConnell Building, Room: LB 185
(514) 848-2668

13.1 ADMISSION TO CONCORDIA UNIVERSITY

The University gives fair consideration to all applicants and informs them of its decisions and the basis for such decisions within a reasonable period of time. Concordia has a long tradition of service to adult and part-time students. Basic information on admission requirements and procedures is included in this Calendar. More detailed information can be found in the Admissions Guide.
In keeping with general principles accepted by Québec universities, admission to Concordia University is open to qualified applicants in the programme of their choice. In programmes with limited enrolments, not all qualified applicants can be accepted. In such cases, the University accepts those with the strongest qualifications and demonstrable potential. Qualified applicants not admitted to their preferred programme are immediately considered for their second-choice programme.
The University maintains a Student Service Centre on the Sir George Williams Campus where application forms as well as information about requirements and procedures are available.
There is a single processing centre to which all applications and supporting documents should be mailed:

Concordia University
Admissions Application Centre
P.O. Box 2900
Montréal, Québec
H3G 2S2

13.2 DEFINITIONS

The Academic Year
The Academic Year begins with a Summer Session (May to August) followed by a Regular Session (September to April). The Summer Session includes all courses offered between the beginning of May and the end of August. The Regular Session is divided into a Fall Term (September-December) and a Winter Term (January-April), each 15 weeks long. Terms include an examination period, during which any final examination must be held. The Academic Calendar §11 lists precise dates for the beginning and end of classes and examination periods.

Undergraduate Students
Students registered in an undergraduate degree or in a Certificate programme, whether on a full-time or part-time basis. See §16.1.2 for a definition of full-time and part-time study.

Mature Students
Undergraduate students who do not meet regular academic admission requirements and have been admitted on the basis of their age, experience, and potential.

Extended Credit Programme Students
Students registered in an extended programme, normally requiring a minimum of 120 credits, designed for students entering from secondary institutions outside Québec. (See relevant Faculty section).

Visiting Students
Undergraduate students from other universities who have written approval from their home university to take courses at Concordia University, or students currently registered in certain Certificate programmes sponsored by external associations (e.g. programmes in the Faculty of Commerce and Administration).

Independent Students
Students not seeking a degree or Certificate.

Residence Requirement
The minimum number of credits which must be taken at Concordia University to obtain a degree or Certificate awarded by the University.

13.3 ADMISSION REQUIREMENTS

13.3.1 Applicants from Québec Institutions

Québec applicants must have successfully completed a two-year pre-university programme in a CEGEP and qualify for a Diploma of Collegial Studies (DEC) or the equivalent. Applicants who have completed a three-year professional programme in a CEGEP or have obtained a French or International Baccalaureate are also eligible for consideration.
CEGEP records of applicants must include the successfully completed prerequisites of the Concordia degree programme for which they are applying. These programmes and admission requirements "profiles" are listed in:

- The Department of Education booklet "Accueil 96 – Structures d'accueil aux études universitaires de premier cycle",
- The programmes and admission requirements listed under each Faculty section,
- The Admissions Guide.

Students admitted to a particular programme at the University and who subsequently wish to change to another programme may have to complete specific prerequisites in addition to their regular programme requirements.

13.3.2 Applicants from Other Canadian Provinces

Graduates of secondary schools in Canadian provinces and territories other than Québec are considered for admission to the Extended Credit Programme (ECP) at Concordia. The ECP requires completion of 30 credits in addition to the regular 90-credit (three-year) degree programme (for a total of 120 credits). The duration of a degree programme is normally four years. The BEng degree will generally require five years of full-time study to complete.
To be considered for admission, students must have a minimum overall average of 65% in academic subjects taken in the final year of secondary school, and should have senior high school course credits appropriate to the degree programme for which they are applying. Higher averages may be required for admission to certain programmes in which the demand for places by qualified applicants exceeds the number of places available.

Students completing the following levels of education may be considered for entry to the Extended Credit Programme.

Ontario
Applicants from Ontario must present the Ontario Secondary School Diploma (OSSD) with a minimum overall average of 65% in six appropriate Ontario Academic Courses (OACs). The SSHGD and the OSSD will be given equal consideration for admission purposes.
Students entering programmes in either the Faculty of Arts and Science or the Faculty of Fine Arts

are awarded six credits each (to a maximum of 30 credits) for OAC courses in the humanities or social sciences completed with grades of 70% or over. The policy regarding the awarding of credits is subject to review on an annual basis.

Other Provinces
Applicants from all other provinces and territories must have successfully completed Grade 12.

13.3.3 Transfers from Other Universities

Each transfer application is considered on its merits. The number of transfer credits granted depends on the character, quality, and quantity of the work completed at the accredited institution. In allowing transfer credits, some special conditions apply:
1. Students will not be given credit for courses taken in another university during the same academic term in which they have registered for courses at Concordia University, unless special permission has been obtained in advance from this University. The Office of the Registrar should be contacted for information on the correct procedure.
2. To earn an undergraduate degree, students must take a minimum of 45 credits at Concordia University. These should be the **last** 45 credits. The BEng requires 60 credits at Concordia.
3. Students transferring to Concordia after having failed to achieve a satisfactory record at another university must take a minimum of 60 credits at Concordia.
4. At least 50% of the degree credits for Honours, Specializations, Majors, or Minors must be taken at Concordia. Individual Faculties determine the precise proportion.

13.3.4 Transfers from Other Post-Secondary Institutions

Each transfer application is considered on its merits. Credits from junior colleges, community colleges, or colleges of applied arts and technology outside Québec will, in general, be given the same recognition towards undergraduate programmes as they receive in their respective provinces.

13.3.5 Pro-Tanto Credits and Exemptions

Pro-tanto credits are credits for courses taken at another institution (or in another Concordia programme) which may be transferred towards a Concordia degree. The Office of the Registrar, in consultation with the four Faculties, assesses all requests for pro-tanto credits.
An exemption from a course has no credit value towards a degree. Exemptions from required courses may be granted in cases where students have already covered the work at another institution, with an appropriate level of performance. Any such courses will be replaced with courses they choose in consultation with their advisers.

13.3.6 Applicants from Outside Canada

The academic qualifications required of Canadian students applying from institutions outside Canada are comparable to those required of students applying from within Canada.
Non-Canadian applicants from institutions outside Canada should refer to §19.

13.4 LANGUAGE PROFICIENCY

While the language of instruction at Concordia is English, most assignments and examinations may be submitted in French. Students whose first language is neither French nor English must demonstrate language proficiency prior to their admission to Concordia. They will ordinarily be exempt from pre-admission English tests if they meet one of the following criteria:
1. They hold a Québec Diploma of Collegial Studies (or its equivalent from an English- or French-language school system).
2. They have obtained an O-level pass in English language in the General Certificate of Education, or the equivalent.
3. They are applying for Mature Entry or for admission to the Extended Credit Programme, and they completed their last two years of full-time schooling in an English- or French-language system.
If none of these criteria fits, a student whose first language is other than English or French must write a required English test (see §16.2.4). Only when the Admissions Application Centre has received the test results is the student's application to Concordia considered complete.
Any exceptional cases will be decided by the Office of the Registrar.

13.5 APPLYING FOR ADMISSION

Application forms are available from the Office of the Registrar. Students should apply for admission as early as possible to allow sufficient time for the evaluation of their applications. This is especially true for applicants from outside Canada. Supporting documents must be submitted at the time of application or as soon afterwards as they become available.
Applicants must state their full academic history on their application for admission or risk cancellation of their acceptance or registration. No transfer credit will be awarded retroactively for former studies not reported in the application.

13.5.1
Application Fee

There is a $30 (Canadian) application fee required with every application, payable by certified cheque or money order to Concordia University. Applicants from outside Canada may pay this fee by international money order or draft drawn on a Canadian bank in Canadian funds.
This application fee is not refundable under any circumstances, nor can it be used towards tuition. It is not transferable to a session other than that for which the student is applying.

13.5.2
Deadlines

September is the normal point of entry to full-time and part-time studies. Entry in January or in the Summer Session is limited to certain programmes. International students who are applying from outside Canada are admitted in January in exceptional cases only. Students should refer to the admissions information within the relevant Faculty section.

Full-Time
March 1 and October 15 are the application deadline dates normally set for the Fall and Winter terms respectively.

Part-Time
The deadlines for applying for Fall and Winter terms are July 15 and October 15 respectively. However, candidates are encouraged to submit their applications well before the start of term to allow sufficient time for evaluation and notification.
Note: Part-time applicants to the Faculty of Fine Arts should apply before March 1.
Further information can be obtained from the Office of the Registrar.

13.6 SPECIAL ADMISSIONS

13.6.1
Mature Students

Mature students are undergraduates who have not met the regular academic admission requirements (e.g. completion of a DEC or equivalent), but have been admitted on the basis of age, experience, and potential. Mature students may study full-time or part-time.
Information on Mature Entry is contained in §14.

13.6.2
Visiting Students

Visiting students are undergraduate students from other universities who have written approval from their home university to take courses at Concordia University, or they are students currently registered in certain Certificate programmes sponsored by external associations. These students may apply for Visiting student status by contacting the Birks Student Service Centre. The granting of such status in no way guarantees a student a place in a course.
1. Undergraduate students from other universities who wish to take courses at Concordia must submit a letter of permission from the registrar of their home university and citizenship documents (see §13.7) or a student visa.
2. Students who wish to register in Certificate programmes sponsored by external associations must submit proof of membership in the association and citizenship documents (see §13.7).

13.6.3
Independent Students

Concordia University allows individuals who are not seeking a degree or Certificate to register as Independent students, if they are Canadian Citizens, Permanent Residents (Landed Immigrants) or holders of a diplomatic visa, and if they satisfy admission requirements. Independent students may register for a maximum of 18 credits a year, equally divided between Fall and Winter terms. They register for courses once all undergraduate students have selected their schedules; their Independent status in no way guarantees them a place in a given course.
There are two categories of Independent student:
1. those who meet regular admission requirements.
2. those who meet Mature Entry age requirements (see §14.3), and satisfy the University that they have the right background for the course(s) for which they wish to register.
Note: Independent students must satisfy the University that they have completed prerequisite courses where required.
Applicants for Independent status should contact the Office of the Registrar. They will be required to submit citizenship documents (see §13.7) and evidence of having met University entrance requirements.
Independent students who subsequently wish to enter a degree or Certificate programme must make a formal application to the Office of the Registrar. Credits acquired by Independent students may subsequently be applied towards a degree or Certificate programme, if appropriate. In the case of the Faculty of Arts and Science, an Independent student may be granted a maximum of 30 credits towards a degree.

13.7 REQUIRED DOCUMENTS

Citizenship Documents
Canadian Citizens and Permanent Residents (Landed Immigrants) must present documents with proof of their status in Canada. Applicants who have been accepted by the University and who have not provided such evidence are automatically charged International tuition fees. To prove their citizenship or residency status, applicants must supply the Office of the Registrar with a photocopy of *one* of the following documents:

Canadian Birth Certificate;
Canadian Baptismal Certificate (indicating place of birth);
Citizenship or Permanent Resident (Landed Immigrant) papers;
Canadian Passport.

The following documents are **not** acceptable:

Driver's Licence;
Medicare or Health Insurance card;
Social Insurance Number card.

13.7.1
All Applicants

Academic Documents
Applicants must submit all secondary and post-secondary academic records. They must ensure that an **official** transcript is forwarded directly to the Admissions Application Centre by all the institutions which they have attended. (Applications will not be considered until an official transcript from EACH institution has been received. These are required even where the student may have earned no credit.)
With their application, students currently enrolled at an institution must include results from all previous terms together with a list of courses in progress. They must arrange for an **official** transcript with the results of the final semester to be forwarded as soon as possible. All documents must be originals or appropriately certified copies. Uncertified copies are not acceptable; neither are records transmitted by fax. Certificates in other languages must be accompanied by a notarized translation. If the certificate does not detail the subjects and the grades, a certified statement of these from an authorized official of the institution should also be included.

13.7.2
CEGEP Applicants

All CEGEP applicants must provide at the time of application, or as soon thereafter as possible, an accurate and complete copy of their CEGEP transcript. This transcript should show their record to date, including grades for all courses followed during the previous term. A list of courses in progress should also be included.

CEGEP Students
For students applying from CEGEP, Concordia University will automatically obtain the required CEGEP records from CREPUQ (Conférence des recteurs et des principaux des universités du Québec). To prevent delays in the transfer of the CEGEP records, students must correctly enter their "code permanent" (the educational code number for Québec students) on their application forms and submit these as early as possible.

13.8 SELECTION PROCESS AND NOTIFICATION

13.8.1
Early Conditional Admission

Applicants seeking admission to undergraduate programmes may be granted conditional acceptance on the basis of available academic records, including interim results for the current year. Final admission is contingent upon a student's successfully completing the final term or semester and satisfying all of the academic admission requirements. Candidates granted early conditional admission are usually notified before May 15.

13.8.2
Admission Deposit

Applicants who have been granted admission or conditional admission to full-time studies or to certain part-time programmes must submit a cheque or money order for $50 (Canadian) to confirm their intention to enter the University. This non-refundable admission deposit is applied towards tuition fees.
Applicants who receive conditional acceptance, but who are ultimately denied admission because they have not completed the minimum academic requirements for entrance, will receive a refund of their admission deposit.

13.8.3
Registration

Complete information regarding registration is sent to all students with the letter of acceptance.

mature entry

14.1 ***GENERAL INFORMATION***

14.2 ***CENTRE FOR MATURE STUDENTS***

14.3 ***ADMISSION AS A MATURE STUDENT***

14.4 ***PROGRAMME REQUIREMENTS***
- **14.4.1** Faculty of Arts and Science
- **14.4.2** Faculty of Commerce and Administration
- **14.4.3** Faculty of Engineering and Computer Science
- **14.4.4** Faculty of Fine Arts

14.5 ***PROGRAMMES OF STUDY FOR SENIOR STUDENTS***
- **14.5.1** Senior Scholarships

section 14

14 MATURE ENTRY

Director
MARY BRIAN, *Associate Professor, Mathematics*

Associate Director
JOHN MILLER, *Assistant Professor, English*

Fellows
W. RONALD HOOPER, *Associate Professor, Psychology*
HERBERT HORWICH, *Associate Professor, Sociology*
E. BRIAN MARKLAND, *Associate Professor, Accountancy*
DAN OTCHERE, *Associate Professor, Economics*

Associate Fellows
DIANE ADKINS, *Counsellor, Counselling and Development*
LESLIE BECSKEI, *Coordinator, Academic Programmes, Engineering and Computer Science*
DONALD CHAMBERS, *Coordinator, Registration, Arts and Science*
RIVA HEFT, *Director, Adult Education*
PERLA MUYAL, *Academic Adviser, Fine Arts*
PETER REGIMBALD, *Assistant Registrar*
MAUREEN STACEY, *Coordinator, Undergraduate Student Affairs, Commerce and Administration*

Location

To advise and assist both prospective and enrolled students, Concordia maintains a Centre for Mature Students with facilities on both campuses.

J.W. McConnell Building, Room: LB 517
1400 de Maisonneuve Boulevard W.
(514) 848-3890

Hours:
During Fall/Winter semesters
Monday to Thursday
8:00 AM to 8:00 PM
Friday
8:00 AM to 5:00 PM

Administration Building, Room: AD 424
7141 Sherbrooke Street W.
(514) 848-3895

Hours:
During Fall/Winter semesters
Monday to Friday
8:30 AM to 4:30 PM

Summer hours are posted.

14.1 GENERAL INFORMATION

For many years, Concordia has demonstrated its commitment to educating men and women of all ages. Through mature entry, adults may earn university degrees and certificates at Concordia although they lack the pre-university preparation normally required of applicants. Concordia also offers an audit programme which allows people 60 years of age or over to participate in courses on a non-credit basis.

At Concordia, we use the term "mature entrants" to designate students 21 or over who have not completed the normal academic admission requirements. The designation does not apply to adult applicants whose academic background qualifies them for regular admission.

In applying to Concordia, students apply for admission to particular programmes within one of the four Faculties of the University. In every respect, mature entrants at Concordia are treated as regular undergraduates and are expected to meet the same standards before graduating.

Normally, mature entrants without any CEGEP or equivalent must complete at least 18 additional credits of preparatory or complementary courses. These additional credits are intended to help mature entrants to prepare for their subsequent studies. Students with partial CEGEP or equivalent may be given advanced standing for some of the additional 18 credits.

14.2 CENTRE FOR MATURE STUDENTS

The primary aim of the Centre for Mature Students is to provide services for mature entry students returning to formal studies after an absence of some years.

Advisers on staff are qualified to help guide students with course selections or with problems of an academic or administrative nature. The work of the advisers at the Centre is supported and enhanced by the contributions of the Centre's Fellows.

The Fellows are Concordia University faculty members especially interested in the challenges

encountered by adults working towards a degree. They are available at certain times to offer advice and information on both elective and required courses in their areas of specialty. Associate Fellows of the Centre, who are generally University staff members, are available to students and advisers for consultation on a variety of concerns such as entry requirements, administrative procedures, and study skills.

It is the goal of everyone involved in the work of the Centre to try to provide mature students with a sense of belonging and help them gain the self-confidence necessary for successful university work.

14.3 ADMISSION AS A MATURE STUDENT

The admission of applicants for mature entry is subject to the following conditions:

1. Applicants must have reached the age of 21 by August 1 for the September term, December 1 for the January term, or April 1 for the May term in any given year;
2. Although not meeting the normal academic requirements for admission (Québec Diplôme d'études collégiales or the equivalent), applicants must satisfy the University that they have the potential to undertake undergraduate courses; those who have the Québec Diplôme d'études collégiales or the equivalent should contact the Office of the Registrar regarding their admission;
3. Applicants must have been out of school — that is not engaged in full-time study — for at least 24 months since attaining the age of 18. Applicants who have been out of school for only 12 months are also admissible provided that they have had no unfavourable academic record in the previous 24 months;
4. Applicants must be Canadian Citizens or Permanent Residents (Landed Immigrants). Applicants must submit proof of citizenship and age, together with school records and any material which may indicate ability to pursue university studies. Applicants are expected to arrange for official transcripts of all of their previous studies to be sent directly to Concordia; (§13 provides general information on how to apply for admission.)
5. In all programmes, some students may require courses in English as a Second Language, as determined by Language Proficiency Testing. See §13.4 of this Calendar regarding Language Proficiency Testing.

14.4 PROGRAMME REQUIREMENTS

Within the initial 18 credits of a Mature entry programme, a maximum of six credits may count towards the student's eventual concentration (Honours, Major, etc.).

In selecting courses to fulfil the 18-credit requirement, mature students in the Faculty of Arts and Science must consult with advisers at the Centre for Mature Students. Once students have completed these preliminary courses, they select courses in consultation with advisers in their programme rather than at the Centre.

Mature students accepted into the Faculties of Commerce and Administration, Fine Arts, or Engineering and Computer Science consult directly with their Faculty in selecting courses to fulfil both the 18-credit requirement and subsequent requirements.

14.4.1 *Faculty of Arts and Science*

Arts

For most BA programmes there are no specific programme prerequisites. Therefore within the initial 18 credits, students are encouraged to take courses which will broaden their background or help them develop study skills.

NOTE: Mature entry students may not apply directly to Early Childhood Education, TESL Certificate, and in general the BEd (TESL). These students must complete 18 credits prior to applying to the above programmes.

Certain Arts programmes have specific prerequisites which will take up some or all of the initial 18 credits. These are listed as follows:

Applied Social Science (BA)	PSYC 200[6]
Applied Social Science (Certificate programmes)	APSS 240[6]; PSYC 200[6]; SOCI 203[3]; ENGL 212[3]
Community and Ethnic Studies (Certificate programme)	ANTH 202[3]; SOCI 203[3]
Economics (BA)	MATH 209[3]

NOTE: Students may need one or more of MATH 200[3] and MATH 206[3].

Leisure Studies and Therapeutic Recreation (BA)
PSYC 200[6]; SOCI 212[3]; BIOL 200[6]* or 201[3]

**Students in the Therapeutic Recreation programme must choose BIOL 200[6].*

Mathematics (BA)	MATH 203[3], 204[3], 205[3]

NOTE: Students not having MATH 202[3] or the equivalent must include it in their 18 credits.
NOTE: Students may need one or more of MATH 200[3] and MATH 201[3].

Psychology (BA)	PSYC 200[6]; BIOL 200[6] or 201[3], three credits in Mathematics (in preparation for statistics) chosen in consultation with the Centre for Mature Students.

Science

For those mature entry students pursuing a degree in Science the following courses must be included within their 108-credit requirement:

6 credits in Chemistry: CHEM 205[3], 206[3]
9 credits in Mathematics: MATH 202[3], 203[3], 205[3]*
8 credits in Physics: PHYS 204[3], 205[3], 224[1], 225[1]

Additional requirements for programmes in the following Departments:

Biology and Psychology:	BIOL 201[3]
Chemistry:	PHYS 206[3], 226[1] (BIOL 201[3] recommended)
Biochemistry:	PHYS 206[3], 226[1] and BIOL 201[3]
Exercise Science:	PHYS 206[3], 226[1] and BIOL 201[3]
Geology:	PHYS 206[3], 226[1] and GEOL 210[3]
Mathematics:	MATH 204[3]
Physics:	PHYS 206[3], 226[1] and MATH 204[3]

NOTE: Students must consult with advisers of the Centre for Mature Students before registering particularly with regard to the sequencing of the above credits in the BSc degree. Consultation with the Centre for Mature Students is also necessary in the choice of the 18 additional credits required in the case of a Certificate.

** Students not having MATH 201[3], or the equivalent, must take it in place of one of their elective courses. Some students may also need MATH 200[3].*

14.4.2
Faculty of Commerce and Administration

For entry to degree programmes in Commerce and Administration, mature entry students must include the following within their 108-credit requirement:

6 credits in Mathematics: 208[3], 209[3]*
12 elective credits, appropriate for the student's intended programme**.

** Students may need one or more of MATH 200[3] and MATH 206[3].*
*** If necessary, the 12 credits may include the following courses: ECON 201, 203; INTE 290/COMP 201.*

Requirements for Certificate programmes are listed with the programme descriptions in §61 of this Calendar.

14.4.3
Faculty of Engineering and Computer Science

Engineering

Mature entrants to the BEng degree, which requires completion of a minimum of 115.5 to 118.5 credits depending on the programme chosen, are also required to complete a minimum of 18 credits beyond the normal requirements for their programme, including the following courses*:

a) Building, Civil, Industrial, and Mechanical Engineering:
CHEM 205[3]
MATH 202[3], 203[3], 204[3], 205[3]
PHYS 204[3], 205[3], 224[1], 225[1]
COMP 201[3]
Six credits chosen from courses in the humanities and social sciences.

b) Electrical and Computer Engineering:
The courses specified in a), plus PHYS 206[3]

**In all programmes, some students may require one or more of MATH 200[3] and 201[3] as determined by the Faculty, and/or courses in English as a Second Language, as determined by Language Proficiency Testing.*

Computer Science

Mature entry students accepted to the BCompSc must include in their degree programme (minimum 108 credits) the following courses:*

a) Information Systems Options:
MATH 202[3], 203[3], 204[3], 205[3]
COMP 201[3]

b) Other Options:
The courses specified in the Information Systems Option above, plus
CHEM 205[3]; PHYS 204[3], 205[3], 224[1], 225[1]

Depending on the option chosen, up to six of the credits listed above may be applied towards the elective component of the regular degree programme.
**In all options, some students may require one or more of MATH 200[3] and 201[3] as determined by the Faculty, and/or courses in English as a Second Language, as determined by Language Proficiency Testing.*

14.4.4
Faculty of Fine Arts

Mature entry students wishing to pursue degree and Certificate programmes in the Faculty of Fine Arts must take 18 additional credits appropriate for entry into their ultimate area of concentration. These credits will be chosen with the approval of the Faculty adviser.

14.5 PROGRAMMES OF STUDY FOR SENIOR STUDENTS

Concordia University is committed to lifelong learning and community service. Seniors at Concordia either take credit courses in a programme or as Independent students. They can also choose to audit courses on a non-credit basis through the Senior Audit Programme administered by the Centre for Mature Students.
Students age 60 and older who wish to attend undergraduate courses in the Faculty of Arts and Science for personal interest rather than for credit, may register to audit a maximum of six credits per academic year. Though not required to write class assignments or final examinations, they participate in every other aspect of the courses. Senior audit students pay significantly reduced fees. If seniors wish to pursue an undergraduate programme or take courses as Independent students for credit, they may do so at the regular tuition fees. Some assistance through a Senior Student Bursary is possible for those 65 or over. Applications and information may be obtained at the Financial Aid Office or at the Centre for Mature Students.

14.5.1
Senior Scholarships

Five senior scholarships are offered each year by the University. They are worth $500 a year and may be renewed for up to four years. To be eligible, candidates must be at least 60 years old, and enrolled in a minimum of 12 credits in an undergraduate or graduate programme. Educational background and life experience are taken into account in awarding these scholarships.
There is one additional $500 scholarship made available by money raised by senior students themselves for seniors enrolled in a programme.
Information on these scholarships may be obtained at the Financial Aid Office.

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tuition and fees

15.1 *TUITION AND FEES*

15.2 *PAYMENT OF TUITION AND FEES*

15.3 *CANCELLATIONS - WITHDRAWALS - ADJUSTMENTS*

section 15

15 TUITION AND FEES

15.1 TUITION AND FEES

The University reserves the right to change the published scale of fees without prior notice, and at any time before the beginning of the upcoming academic year.

Tuition fees, which include academic materials and service fees, are based on a per credit charge as listed below:

Canadian and other students with Permanent Residence (Landed Immigrant) status:	
Undergraduate and Independent	$ 55.43
*International students:	
Undergraduate and Independent	$248.43

**Certain International students may be eligible to pay the same fees as Canadian students. Detailed information may be obtained from the Office of the Registrar.*

In addition to the tuition fee, the following fees are charged on a per credit basis:

Student Service Fee		$ 6.80
Student Association and Activity Fee:		
(Commerce)		$ 1.80
(Engineering and Computer Science)		$ 2.00
(Other Faculties)		$ 2.55*
*includes: CSU	$ 2.00	
The Link	$ 0.20	
The Concordian	$ 0.07	
QPIRG	$ 0.20	
Student Broadcast Media Fund	$ 0.08	

In addition to the tuition, student service and student association fee, the following fees are charged on a per term basis:

Registration Fee	$20.00
Concordia Student Safety Patrol Fee	$ 1.00
Eat Your Peel Student Food Co-operative	$ 1.70

Other Fees:		
Application Fee	$ 30	
Application for Degree Transfer	$ 30	
Acknowledgement of Payment Receipt	$ 1	
Billing Fee	$ 1	
Confirmation Deposit (Non-Refundable)	$ 50	
Duplicate of Receipt	$ 2	
Fax Fee (for each 10 pages or less, excluding cover sheet):		
Within local calling area	$ 3	
Elsewhere within Canada/U.S.	$ 5	
Other international	$ 10	
Graduation Fee	$ 40	
Handling Charge on a Returned Cheque	$ 15	
Late Application to Graduate	$ 15	
Mailing of Degree	$ 10	
Certification of Copy of Degree	$ 2	
Replacement Degree	$ 25	
Late Registration Fee	$ 25	
Late Completion Fee	$ 15	
Letter of Financial Standing	$ 5	
Off-Campus Centre Charge	$ 5	per credit*
Off-Campus Examination	$ 10	
Replacement Examination Application Fee (refundable to those who write)	$ 25	

Special Examination Fee (CELDT)	$ 20
Supplemental Examination (plus Invigilation Fee when applicable)	$ 25
Transcript Fax Fee (for each 10 pages or less, excluding cover sheet):	$ 10
Transcript of Academic Record (per address - maximum 3 copies)	$ 5
Copy of Student Record	$ 1
Letter of Attestation	$ 5
Copy of Form T2202 (no charge for first set)	$ 2
Copy of Form Relevé 8 (no charge for first set)	$ 2
Copy of Provincial Tuition Receipt (no charge for first set)	$ 2
Universal Identification Card	$ 10
Replacement of Identification Card	$ 10
Re-evaluation Fee (refundable if re-evaluation is in student's favour)	$ 15
Copy of University Calendar (no charge for first copy)	$ 5
Surcharge on Private Studies Music Courses (6 credits) - subject to change	$380
Health Insurance (International Students)	See §19.5

*There are surcharges (cost varies by course) for Distance Learning and Off-Campus courses. For further information, please contact the Concordia Centre for Off-Campus and Distance Learning.
The Board of Governors has approved a resolution by the Engineering and Computer Science Faculty to contribute $50 (full-time), $25 (part-time) per student for the acquisition and maintenance of laboratory and computer equipment.
Interest is payable on the outstanding balance of student accounts at the rate of 0.8% per month (10% per annum). This rate may change from time to time in conformity with prevailing interest rates.

15.2 PAYMENT OF TUITION AND OTHER FEES

Concordia University will not accept cash payments for student tuition and other fees. Payments can be made at any chartered bank (in Canada), by personal cheque, certified cheque, money order, MasterCard, Visa, or by debit card (Interac).
In order to register and remain registered in future sessions, accounts must be in good standing. All monies owing to the University (such as tuition and other fees, multi-term tuition fees, Residence rent, delinquent emergency loans) must be paid when due. Students with overdue or delinquent accounts are not permitted to register or re-register until payment or satisfactory payment arrangements have been made with the Student Accounts Office.
The consequence for non-payment by the payment deadline date is the cancellation of all future course registrations. The deadline dates for the payment of student tuition and other fees are:

Summer Registration
Summer Term (/1 courses)
1. Payment is due upon registration. Interest will be charged on outstanding balances beginning May 31.
2. **100% of all Summer fees (/1 courses) must be paid by August 15.** The consequence for non-payment by the payment deadline is the cancellation of all future course registrations beginning with the next Fall Term (all /2, /3 and /4 courses).

Fall/Winter Registration
Fall Term (/2 courses)
1. **100% of all Fall fees (/2 courses) must be paid by the Fall DNE deadline date — September 18, 1996.** Interest will be charged on outstanding balances beginning September 30. The consequence for non-payment by September 18 is the cancellation of all future course registrations beginning with the next Winter Term (all /4 courses).

Fall/Winter Term (/3 courses)
1. **50% of all Fall/Winter, two-term fees (/3 courses) must be paid by the Fall DNE deadline date — September 18, 1996.** Interest will be charged on the outstanding balances (first 50%) beginning September 30. The consequence for non-payment by September 18 is the cancellation of all future course registrations beginning with the next Winter Term (all /4 courses).
2. **The remaining 50% of all Fall/Winter, two-term fees (/3 courses) must be paid by the Winter DNE deadline date — January 20, 1997.** Interest will be charged on outstanding balances beginning January 31. No registration for future academic sessions will be permitted until all overdue accounts are paid in full.

Winter Term (/4 courses)

1. **100% of all Winter fees (/4 courses) must be paid by January 20, 1997.** Interest will be charged on outstanding balances beginning January 31. No registration for future academic sessions will be permitted until all overdue accounts are paid in full.

Once students have registered for courses, they are responsible for the payment of all resulting fees. Please refer to §15.3 for information concerning Cancellations – Withdrawals – Adjustments.

Unpaid Accounts: Failure to make payment, or to arrange satisfactory settlement of all monies owing to the University when they become due is sufficient cause to cancel future registrations, to prohibit students from registering, to bar students from classes or examinations, and to withhold diplomas, scholastic certificates, or transcripts of record until the debt is adjusted with the University.

Adjustment to Accounts: All accounts are subject to revision for changes in the published scale of fees, which may be made without prior notice at any time before the beginning of the upcoming academic year, and for the adjustment of errors or omissions, as well as in the case of courses cancelled by the University.

Returned Cheques: Current and/or future registrations may be cancelled if a cheque is returned for any reason. (Note: For all "returned" cheques, replacement must be made by certified cheque, money order, MasterCard, Visa, or debit card (Interac).) In any event, a charge of $15 will be made for each returned cheque.

15.3 CANCELLATIONS – WITHDRAWALS – ADJUSTMENTS

Withdrawal from a course, courses or a programme: Students who withdraw from courses or from the University must comply with the requirements set out in this section in order to qualify for any rebate of tuition. Students who are granted late academic withdrawal from a course, courses or a programme after the deadline for academic withdrawal has passed, do not qualify for any rebate in tuition.

Withdrawal from classes does not entitle students to refunds or financial credit of fees, or cancellation of registration. Once students have registered for courses, they are responsible for the payment of all resulting fees. In order to qualify for a rebate or financial credit of tuition, students who withdraw from courses or from the University must comply with the requirements and withdrawal deadlines set out in the appropriate Undergraduate Class Schedule. **In the event that students have not yet made payment for these fees, students will be held financially responsible if they do not withdraw from a course, courses, or from the University *on or before* the prescribed withdrawal (DNE) deadline. Not attending classes or informing an instructor of an intent to withdraw does not constitute official withdrawal. For complete withdrawal procedures, please see §16.1.6.**

OFF-CAMPUS COURSES: Same withdrawal policies and procedures as on-campus courses.

Rebate of Tuition

Tuition fees charged on credit courses for previous years are non-refundable. The following rebates are applied to withdrawals effected in a current academic year.

Summer Session

Courses of at least three weeks duration: withdrawal within one week of the start of the term. No refund after that date.

Courses of less than three weeks duration: withdrawal on or before the first day of the term. No refund after that date.

Courses which begin in September (/2 and /3 courses)

Withdrawal within two weeks from the date of beginning of classes: a full refund. No refund after two weeks.

Courses which begin in January (/4 courses)

Withdrawal within two weeks from the date of beginning of classes: a full refund. No refund after two weeks.

N.B. Exact deadlines are also published in the Undergraduate Class Schedule.

academic information: definitions and regulations

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section 16

16 ACADEMIC INFORMATION: DEFINITIONS AND REGULATIONS

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16.1 General Information

This Calendar is the official University document defining academic programmes and the regulations which pertain to them. The regulations contained in this section apply to all students at the undergraduate level, whether they are enrolled in degree, Certificate, or qualifying programmes or registered as Visiting or Independent students, with the following exceptions:

a) Degree, Certificate, and qualifying programme requirements are determined by those in effect in the year of the student's admission. (See §16.2)

b) The regulations concerning Residence Requirements, Academic Performance Requirements and High Academic Achievement are also governed by those in effect in the year of a student's admission.

Students who were admitted before the current year should consult the appropriate Calendar for information on these regulations.

Specific written permission must be obtained from the appropriate authority for exemption from any academic regulation.

Students must have a valid I.D. card to access certain services.

16.1.1 Academic Year

The Academic Year begins with a Summer Session (May to August) followed by a Regular Session (September to April).

Summer Session:
The Summer Session includes all courses offered between the beginning of May and the end of August.

Regular Session:
The Regular Session is divided into a Fall Term (September-December) and a Winter Term (January-April), each 15 weeks long. Terms include an examination period, during which any final examination must be held. The Academic Calendar §11 lists precise dates for the beginning and end of classes and examination periods.

16.1.2 Credit System

In accordance with the recommendations of the Conseil des Universités du Québec, students' academic activity is measured according to the credit system. For the average student, each credit represents a minimum of 45 hours of academic activity, including lectures, tutorials, laboratories, studio or practice periods, examinations, and personal work.

I. FULL- AND PART-TIME STATUS

A student's status is determined by the number of credits for which she or he is registered at the close of the tuition refund period, in the following way:

	Full-Time*	**Part-Time**
Registration for both Fall and Winter terms	24 Credits or More	Less than 24 Credits
Registration for Fall Term Only	12 Credits or More	Less than 12 Credits

Registration for Winter Term Only	12 Credits or More	Less than 12 Credits
Registration for the Summer Session	12 Credits	Less than 12 Credits

NOTE:* Students receiving Québec loans and bursaries are advised that, according to the rules established by the Government of Québec, they must maintain registration of 12 credits or more **each term. For further information, see Financial Aid §18.7.1.

II. CREDIT LOADS

Regular Session – Full-Time Status
Full-time students normally take 30 credits in each Regular Session. They may register for a maximum of 15 credits in each of the Fall and Winter terms. Engineering programmes may require more than 30 credits. For information on Engineering credit loads, see §71.

Regular Session – Part-Time Status
Part-time students in all Faculties may register for a maximum of nine credits in each of the Fall and Winter terms.

Regular Session – Independent Status
Independent students may register for a maximum of nine credits in each of the Fall and Winter terms.

Summer Session
Any student, other than one in the Institute for Co-operative Education §24 or the Faculty of Engineering and Computer Science §71, may register for a maximum of 12 credits during the Summer Session.

16.1.3 Residence Requirements

Residence requirements define the number of credits which students working towards a Concordia University degree must take at the University itself.

1. Of the total number of credits required for an undergraduate degree, students must take a minimum of 45 credits, normally the last 45, at Concordia University. The BEng requires 60 credits, normally the last 60, at Concordia.

2. At least 50% of the credits for Honours, Specializations, Majors, Minors or other concentrations must be taken at Concordia.

3. Concordia University students who wish to include courses taken at another university within their residence requirements must obtain permission **in advance**. (See §16.1.7)

4. Students who already have an undergraduate degree may undertake a second undergraduate degree, subject to the conditions below. (Before registering, such students should consider whether their purpose might be better served by taking a graduate degree or diploma programme.) To obtain a second undergraduate degree, students must:
   a) register in a programme with a higher concentration than a Minor, and
   b) complete at least two-thirds of the credits normally required for the second degree in courses other than those credited to the first degree — for example, a minimum of 60 credits must be completed when the normal requirement is 90 credits, and
   c) complete at least 36 credits in the new field of concentration.

5. Any student who is accepted at Concordia University after failing or compiling an unsatisfactory record at another university, will generally be required to complete at least 60 credits.

16.1.4 Registration for Courses

Students select courses for each session (Summer and Fall/Winter) prior to the start of classes. All returning students in good standing and newly-admitted students will receive registration material by mail; new Independent and Visiting students can obtain registration information at the Birks Student Service Centre.
Most students will be able to register for all their courses by touchtone telephone using CARL, the Concordia Automated Response Line.

16.1.5 Cancellation of Classes

If no class cancellation notice is posted on the classroom door, classes are officially considered cancelled if an instructor is 15 minutes late for a 50-minute class, 20 minutes late for a 75-minute class, or 30 minutes late for longer classes.

16.1.6
Withdrawal

Students who wish to withdraw from a course or courses must notify the Office of the Registrar. This can be done in person at the Birks Student Service Centre, by calling the Concordia Automated Response Line (CARL), or by letter. (For their own protection, students should send such letters by registered mail or by fax.)
Students who wish to withdraw from the University completely must withdraw from all their courses **and** notify the Office of the Registrar in writing.
Withdrawal deadlines are listed in the Academic Calendar §11 and in the appropriate Class Schedules. Rebates of tuition and other fees are only given for a limited time. (See §15)
The responsibility for taking all steps necessary to withdraw from courses is entirely the student's. Not attending classes or informing an instructor of an intent to withdraw does not constitute official withdrawal. An evaluation by the instructor of a student's progress is not mandatory prior to the withdrawal deadline. Students who do not properly withdraw before the specified deadlines will receive failing grades.

16.1.7
Studies at Other Universities

With the exceptions listed below, students who wish to take courses at other universities for transfer credit (for example, in the Summer) must obtain permission **in advance** from their Faculty Student Request Committee.

1. Cross-registration within Québec (Inter-University Agreement)
Québec universities have agreed to permit students registered at one university (called the home university), to take one or more courses at another university (called the host university) if they have valid reasons for doing so.
A student must obtain authorization to cross-register from his or her academic adviser, the appropriate Associate/Vice-Dean of the student's Faculty, and the Registrar. Authorization forms are available from the Birks Student Service Centre and the Faculty Dean's offices.
The host university has the right to refuse to register a student from another university in any of its courses or programmes. Students are expected to follow the registration procedures of the host university and are subject to the regulations of the host university, **except** for tuition and fee policies which are governed by the home university. Fees are paid to the home university.
Credit earned at host universities count towards Concordia residence and degree requirements. The actual grades earned do not appear on Concordia records or transcripts but passes and failures are indicated. The grades for courses taken under the Inter-University Agreement are not included in students' Grade Point Averages. For those students who are not assessed on the basis of a GPA (e.g. students in the Faculty of Fine Arts), Inter-University Agreement courses count as passes or failures in the usual way.
NOTE: Credit is granted for courses taken at McGill University only if the grade achieved is "C" or better. Courses graded in the "D" range will appear as INTN (Inter-University no credit).

2. International Exchange Programme
Concordia University offers a variety of student exchange programmes which enable qualified students to gain first-hand knowledge and understanding of other parts of the world. These programmes are available to full-time Concordia University students who meet the following conditions:

- they are Canadian Citizens or Permanent Residents;
- they have a good to excellent academic record and are in good academic standing;
- they have completed at least one year of full-time study in the programme in which they are registered;
- they are fluent in the language of the host university;
- they must assume health insurance fees, living expenses and transportation costs to and from the host country.

Further information is available from the *Centre for International Academic Cooperation* – Loyola Campus, Administration Building, Room: AD 207 – (514) 848-4987 or fax 848-2888. The application deadline is February 15.
Some Faculties have their own exchange programmes, normally in the Summer, and should be consulted directly for information.

16.1.8
Student Request Committees

Student Request Committees consider applications from full-time or part-time students for exceptions to academic regulations or related matters, such as permission for course overloads, registration, or withdrawals after the deadline, course substitutions, exceptions to residence requirements, and permission to take courses at other universities. (Independent students must submit **all** requests relating to University regulations to the Registrar.)
Each Faculty has its own Student Request Committee made up as follows:

- three faculty members appointed by the Faculty Council (which may also appoint alternates);

- one representative from the Office of the Registrar;
- one student appointed by the Faculty Council;
- the Associate/Vice-Dean who acts as convener.

Each Committee establishes its own guidelines and delegates to the Associate/Vice-Dean the responsibility for handling certain kinds of requests. Requests on procedural matters will be redirected to the appropriate administrative office. Applications for tuition fee refunds based on non-academic considerations may be forwarded by the Student Request Committee to the Tuition Refund Request Committee.

Students and members of the Faculty may ask that a decision made by the Dean or his or her delegate be reviewed by the Student Request Committee as a whole. Decisions of the Committee are final.

16.1.9 Graduation

Degree and Certificate candidates who expect to complete requirements in a particular year must submit Graduation Application Forms to the Office of the Registrar before July 15 for Fall graduation and before January 15 for Spring graduation. The forms are available at the Birks Student Service Centre. The graduation fee is payable whether or not a student attends Convocation.

16.1.10 Student Record

A record is a comprehensive report of a student's academic history at the University. It is available to the student and to authorized University staff and faculty. Students may obtain a copy of their record from the Birks Student Service Centre during normal operating hours or by written request.

16.1.11 Transcript

A transcript is a version of a student's record intended for the use of external institutions, organizations, and employers. It is accompanied by an explanation of its terminology and is sent directly to the addressee at the written request of the student, providing there is no outstanding account owing to the University. An official transcript is printed on security paper, and is signed and sealed by the Registrar's representative. For each request there is a charge of $3.

16.2 Curriculum Regulations

16.2.1 Modifications to Academic Programmes and Regulations

With the exception of the following conditions, the curriculum requirements in effect at the time students are admitted to a programme (e.g. BA, BFA, Certificate in Business Studies) and/or concentration (e.g. Major, Specialization), are the requirements which apply to them until they complete their programme.

1. The University reserves the right to modify academic programme requirements in the light of (a) changing trends in academic and professional fields, and (b) the availability of resources. In the exceptional event that a programme is substantially altered by the University Senate, the University recognizes its responsibility to offer suitable transition arrangements for students. The new programme requirements should become effective for all students no later than five years after the effective date of change for newly admitted students.
2. When a programme is discontinued, the University recognizes its responsibility to offer courses in the programme while phasing it out according to a schedule appropriate to the needs of the affected students. Students will be informed of the schedule when the decision is made to phase the programme out.

   When students in a discontinued programme have not been registered for three years, it may not be possible to enable them to complete that programme. They may, however, transfer into another programme in the University for which they meet the admission requirements.
3. Where students acquire credit towards a degree or Certificate in a discontinuous manner and over a protracted time, the University reserves the right, at any time, to require them to take further credits or fulfil additional requirements to obtain that degree or Certificate.
4. Modifications to the academic regulations in §16.1 and 16.3 become effective for all students on a given date regardless of the student's date of admission to a programme, with the following exceptions:

   16.1.3 Residence Requirements
   16.3.10 Academic Performance Requirements
   16.3.11 High Academic Achievement

   Modifications to these three regulations apply only to students admitted or readmitted to a programme on or after the effective date of such modifications.
5. In the event a student is readmitted after failing an academic year, the University reserves the right to require the student to take additional credits or to repeat certain courses. The student is also subject to changes in academic regulations or programme requirements in effect at the time of the student's readmission.

16.2.2
Degree Regulations

The regulations relating to degree requirements are located in the Faculty sections:

Faculty of Arts & Science	Section 31
Faculty of Commerce & Administration	Section 61
Faculty of Engineering & Computer Science	Section 71
Faculty of Fine Arts	Section 81

16.2.3
Concentration Requirements

Every undergraduate programme requires a cohesive sequence of courses. To graduate in a degree programme, a student must have completed one of the following concentrations: Honours, Specialization, Major, or in the Faculty of Fine Arts, Double Minor. Honours is a highly concentrated programme with a required performance level; the Specialization and the Major require varying degrees of concentration, normally without a performance requirement; the Double Minor involves a lesser degree of concentration in two disciplines or fields without a performance requirement. An Honours, Specialization, or Major can be combined with a Minor. In some circumstances, a Double Major is also possible.

1. Honours Programmes

The University offers programmes leading to an Honours degree in certain disciplines. The Honours programme consists of 60 or more credits in a discipline, with superior performance required to enter and remain in the programme. In their first year, students may register in Honours programme courses, but their acceptance as Honours **students** will depend on their performance. Students who do not meet requirements for Honours standing may proceed in either a Specialization or a Major programme.

These regulations are the minimum academic standards for Honours programmes. The programmes and particular Faculty regulations are listed in the Faculty sections under "Honours Programmes".

1. An Honours student must meet general degree requirements and the specific requirements for an Honours programme.
2. An Honours student must maintain a Grade Point Average (GPA) of 3.00 in all Honours courses; the minimum acceptable grade in any Honours course is "C".
3. An Honours student must have a minimum GPA of 2.70 for Honours courses taken each year. For part-time students this is calculated in 18-credit blocks.
4. In non-Honours courses, an Honours student must have a GPA of no less than 2.00.
5. Honours students who do not meet these standards will be withdrawn from the Honours programme and will proceed in the Major or Specialization programme. Reinstatement in the Honours programme is possible only with the permission of the Faculty Honours Committee.

2. Specialization Programmes

A Specialization, as recommended by the Conseil des Universités du Québec, is a sequence of courses totalling 60 or more credits which, in a few cases includes a performance requirement. In addition to courses in a particular discipline, the Specialization may include courses in other closely related fields.

3. Major Programmes

A Major, as recommended by the Conseil des Universités du Québec, is a sequence of courses totalling 36 or more credits, except in the Faculty of Commerce and Administration where the Major consists of at least 24 credits in a particular discipline in addition to the required 51-credit core. The Major may include certain courses in other closely related fields.

4. Minor Programmes

A Minor, as recommended by the Conseil des Universités du Québec, is a sequence of courses totalling 24 or more credits, except in the Faculty of Commerce and Administration where the Minor consists of at least 12 credits in the chosen discipline in addition to the required 51-credit core.

5. Double Minor Programmes

In the Faculty of Fine Arts, a Double Minor programme is made up of two sequences of courses in different disciplines, each totalling 24 or more credits.

6. Combined Programmes

An Honours, Specialization, or Major programme may be combined with a Minor programme. In some circumstances, a Major programme may also be combined with another Major programme.

7. Certificate Programmes

An undergraduate Certificate is a coherent programme, usually of 30 credits, made up of regular undergraduate courses. Courses taken as part of a Certificate programme are normally applicable to the appropriate undergraduate degree. There is no guarantee that a Certificate programme can be completed in one academic year.

16.2.4
Writing Skills Requirement

Concordia University is committed to ensuring that its graduating students possess good writing skills. Hence, every student in an undergraduate degree programme is required to demonstrate competence in writing English or French prior to graduation. **Students are strongly encouraged to meet the requirement very early in their programme to avoid the risk of delayed graduation should remedial work prove necessary.**

Note: Independent students and students enrolled in Certificate programmes are not subject to the writing skills requirement.

1. **Students, other than those required to take an English proficiency test prior to admission, can meet the requirements in one of two ways:**

a) Taking a writing course

Any student can satisfy the writing skills requirement by achieving a grade of "C-" or better in English (ENGL) 212 or Français (FRAN) 400.
Students in the Faculty of Engineering and Computer Science are required to take ENCS 281. A grade of "C-" or better in that course satisfies the requirement.
Students in Journalism programmes satisfy the requirement by achieving a grade of "C-" or better in the required course JOUR 201.

b) Taking the University Writing Test (UWT)

The UWT requires a short composition in English or French on the student's choice of several topics. The test is offered a number of times throughout the year and students may take it as often as necessary. (Unsuccessful attempts do not appear on their record.) There is no fee for the UWT.
All newly admitted students, except those required to take ENCS 281 or JOUR 201 and those already registered for ENGL 212 or FRAN 400, should register for the first available sitting. Dates for the test and registration procedures are listed in §11 and are announced in the campus media and at the Birks Student Service Centre.
Following each sitting of the UWT, students who have taken it will be notified of one of the following:

a) that they have passed the test and satisfied the writing skills requirement; or
b) that they should retake the test or register for an appropriate writing course, at their discretion; or
c) that it is unlikely they will pass the UWT or be admitted to ENGL 212 or FRAN 400 without the remedial work offered in ENGL 205, ENGL 206 or comparable courses in Études françaises.

2. **Students required to take an English proficiency test prior to admission**

Students who achieve a prescribed level on the Concordia English Language Diagnostic Test (CELDT), the Test of English as a Foreign Language (TOEFL), or the University of Michigan English Language Test, have satisfied the writing skills requirement. Information about the scores required can be obtained from the Office of the Registrar.
Students admitted with the requirement that they take specific courses in English as a Second Language (ESL) satisfy the writing skills requirement by achieving a grade of at least "C-" in ESL 209.

16.3 Evaluation, Grading System, Examinations, and Performance Requirements

16.3.1
Evaluation

A university degree certifies that its holder has attained a measurable level of achievement as established by a recognized system of evaluation. Thus the performance of each student in each course must be evaluated by the instructor or instructors responsible for the course.
Final grades are determined by students' performance on one or more of the following:

1. Assigned work, term papers, projects, etc.
2. Class participation which, in certain disciplines, may justify an attendance requirement
3. Progress tests
4. Laboratory tests and/or laboratory work
5. Mid-term and/or final examinations
6. Level of written expression.

The weight accorded to the various elements is at the discretion of the instructor or instructors responsible for the course.
At the beginning of a course the instructor will provide students with the evaluation scheme in writing. The scheme cannot be altered without appropriate notice.
Normally, an instructor will submit final grades no later than seven days after the scheduled final examination in a course or, where there is no final examination, seven days after the last scheduled class in a course. In the case of grades for potential graduates at the end of the Winter Term,

instructors are asked to submit grades within three days. There may be additional delays before grades are posted as approvals of the grades and processing time are necessary.
Final grades are official only when they have been approved by the appropriate Faculty Dean or delegate and posted by the Office of the Registrar. The University reserves the right to make corrections at any time in case of error.

16.3.2 Language of Instruction and Examinations

While courses at Concordia University are normally taught in English, if students prefer, they may write assignments and examinations in either English or French. However, language and literature courses may require assignments and examinations to be written in the language being studied. Students who wish to write in French should ask at the beginning of a course whether their instructor can read French or whether someone else will evaluate their work. If the work must be read by another person, extra time may be needed.

16.3.3 Grading System

At the end of each course, the instructor will submit a letter grade for every student registered. Using the grade point equivalents listed below, Grade Point Averages (GPA) are calculated for the evaluation of academic achievement, Honours standing, prizes, and academic standing.

Grade		*Grade Points*
A+	4.30	Outstanding
A	4.00	
A-	3.70	
B+	3.30	Very Good
B	3.00	
B-	2.70	
C+	2.30	Satisfactory
C	2.00	
C-	1.70	
D+	1.30	Marginal Pass
D	1.00	
D-	0.70	
F, FNS	0	Poor — Failure
R	0	Very Poor — Failure
Grade Not Reported (NR)	0	

Passing courses required to fulfil curriculum requirements is not sufficient to graduate as there is also an academic performance requirement (Grade Point Average) in most degree programmes. See the pertinent section of each Faculty's entry in the Calendar for complete details:

Faculty of Arts and Science	Section 31
Faculty of Commerce and Administration	Section 61
Faculty of Engineering and Computer Science	Section 71

The Faculty of Fine Arts does not have a Grade Point Average requirement for graduation.

16.3.4 Failing Grades and Administrative Notations

Failing Grades "F", "FNS", "R" and "NR" notations

1. "F" indicates failure in a course in which a supplemental examination is available.
2. "FNS" indicates failure in a course in which no supplemental examination is available.
3. In a course graded "R", a student is not permitted to write a supplemental or replacement examination, apply for a "MED" notation, or complete work late.
4. Not Reported "NR" indicates that a student appears to have unofficially withdrawn from a course. It is assigned by the Registrar when no material is available to evaluate and the instructor has been unable to submit a grade. "NR" carries a grade point value of zero and counts as a failure.
   In a course with an "NR", a student is not permitted to apply for a "MED" notation, write a replacement or supplemental examination, or complete work late.

16.3.5 Administrative Notations "DISC", "INC", "DNW", "MED"

1. Discontinued "DISC" indicates that a student has properly withdrawn from a course after the end of the course-change period. The notation appears permanently on academic records and official transcripts. It carries no grade point value and does not count in assessments of academic standing.
2. Did Not Write "DNW" indicates that a student has not written the final examination for a course. The notation is used only in combination with a letter grade (such as "F/DNW", "B/DNW"). A student in good standing may write a supplemental examination (if available) in a course with a "DNW" unless the grade is "R/DNW" or "FNS/DNW". For information on how to apply for supplemental examinations and the regulations which govern them, see §16.3.9 II.
3. Incomplete "INC" indicates that a student has not completed required course work, such as a term paper, assignment, or laboratory and that the instructor has agreed to accept the work after the due date. The notation is used only in combination with a letter grade (such as "F/INC", "C/INC") and is assigned on the basis that the missing work is weighted as zero. When appropriate, "DNW" and "INC" can be used simultaneously (e.g. "F/INC/DNW"). For information on how to apply to complete courses with an "INC" notation, and the regulations which govern late completion, see §16.3.6.
4. Medical "MED" indicates that a student has been unable to write an examination or complete other assignments for medical or other serious reasons, such as a death in the family. A "MED" notation carries no grade point value. For information on how to apply for "MED" notations and the regulations which govern them, see §16.3.7.

16.3.6 Late Completion of Courses with "INC" Notations – Procedures and Regulations

1. The deadlines for completion of course assignments are given to students on the first day of class. The "INC" notation is assigned when an instructor has agreed that a student may complete work after the deadline.
2. A student with an "R" grade or "NR" notation in a course may not apply for late completion in that course.
3. Students must apply for late completion of a course. *Applications for Late Completion* are available at the Birks Student Service Centre. For each course there is a charge of $15. Completed applications must be returned to the Birks Student Service Centre by:

February 1:	Fall-term courses
May 15:	Winter and Fall/Winter courses
September 1:	Summer-session courses

4. The completed work must be submitted by:

February 15:	Fall-term courses
May 30:	Winter and Fall/Winter courses
September 15:	Summer-session courses

5. It is the responsibility of the instructor to submit a final grade within five days of these dates. At that time the "INC" notation is permanently removed from the student's record. If the work is still incomplete, the original grade without the "INC" notation will appear on the student's record and the transcript.

16.3.7 Medical "MED" Notations – Procedures and Regulations

1. A student who has missed an examination or not completed an assignment (such as a project or a term paper) for medical or other serious reasons, such as a death in the family, can apply to have his or her original grade replaced by a "MED" notation. The original grade must include an "INC" or "DNW" notation.
2. A "MED" notation cannot be assigned in a course with an "R" grade or "NR" notation.
3. Application forms for "MED" notations are available from the Registration and Examinations Office. **A completed application should be submitted to that office, not to the instructor, Department, or Faculty.** It must be accompanied by a medical certificate on a physician's original letterhead or, if the reasons are not medical, by other appropriate documents (e.g. a death notice or certificate or the equivalent) indicating that the student was unable to write an examination or meet a deadline on the day or days in question. Completed application forms should be submitted to the Registration and Examinations Office within 10 days of the missed examination or of the end of term in the case of a missed assignment.
4. The Registration and Examinations Office is entitled to ask the student to provide additional medical information. In such cases the student will be supplied with a form to be completed by his or her physician.
5. When the Registration and Examinations Office approves the acceptance of a medical certificate or other documents, the notation "MED" will replace the student's original grade for the course or courses concerned. The student is then entitled to write a replacement examination or complete the missing work, as the case may be. For information about replacement examinations, see §16.3.9.

6. When the replacement examination or missing work has been completed and evaluated, a new grade will replace the "MED" notation. If the student does not write a replacement examination or complete the missing work, the "MED" notation will appear permanently on his or her record and transcript (e.g. "MED/DNW" or "MED/INC"). "MED" notations carry no grade point value. Courses with "MED" notations are not included in assessments of academic standing.
7. When a student repeatedly submits medical certificates, the University reserves the right to refer him or her to a physician appointed by the University for a recommendation.

16.3.8 Academic Re-evaluation

I General

1. All students have the right to apply for the re-evaluation of any grade they receive. Such an application may be based on dissatisfaction with either the grade received or the method of grading. Grades may be lowered, maintained, or raised as a result of the re-evaluation.
2. Students have the right to see their examination papers and any marked material that has contributed to the grading of a course. Students applying for re-evaluation are responsible for producing any marked material that has been returned to them by an instructor. Students have the right to have their examination papers or any other marked material re-evaluated separately. **Departments are responsible for preserving written materials in their possession for a period of six months following the official release of grades and producing them on request.**

II. Normal Procedure

1. Students who seek re-evaluation of their work will first endeavour to meet with the instructor and explain their position. If they remain dissatisfied, or are unable to meet with the instructor, they may, on receiving the final grade, apply formally for re-evaluation.
2. Students submit a formal application for re-evaluation to the Registrar. Each application must be submitted in writing on the appropriate form which is available from the Birks Student Service Centre. It must explain the reasons for the student's dissatisfaction and confirm that the student has met with the instructor, or has tried unsuccessfully to do so. A fee of $15 must accompany the application. This amount is reimbursed if the student's grade is raised as a result of the application.
3. Deadlines for applications are as follows:

February 1:	Fall-term courses
June 15:	Winter-term courses
October 1:	Summer-session courses

   The Registrar may extend these deadlines if the student applying for re-evaluation could not reasonably have done so within the time limit.
4. The Registrar forwards the application immediately to the Chair of the appropriate Department with a copy to the instructor and the Dean.
5. The Department Chair appoints a suitable person or persons to carry out the re-evaluation or investigation, communicating the name or names to the student, the instructor, the appropriate Dean, and the Registrar. Normally, a member of the Faculty in whose course the student is currently enrolled is not eligible to conduct a re-evaluation or investigation. Where the Department Chair was the instructor of the course at issue, the appropriate Dean will make the appointments.
6. The re-evaluation or investigation will normally be completed within 21 days of the receipt of the application by the Chair.
7. The Chair will inform the student, the instructor, the Dean, and the Registrar of the decision of the person or persons charged with the re-evaluation or investigation. This decision is final.

III. Priority Procedures

1. The priority appeal procedure is provided to speed the process for specific courses designated by the Faculties. A list of these courses is posted in the Birks Student Service Centre prior to the beginning of the course-change period each term.
2. Students registered in these designated courses may file a priority appeal with the Registrar as soon as the grade is known but in no case later than three days before the end of the course-change period for the next term.
3. Students who opt for this priority procedure will still endeavour to resolve the issue with the instructor. If the issue is resolved between the student and the instructor after an appeal is launched, the student must cancel the appeal in order to be reimbursed the $15 fee.
4. The Dean will appoint a person to ensure, in collaboration with the Registrar, the timely processing of priority appeals in accordance with the procedure set out in II, 5.
5. The re-evaluation or investigation process in priority cases must be completed prior to the last day of the course-change period for the next term.
6. The Dean's appointee will inform the student, the instructor, the Dean, and the Registrar of the decision of the person or persons charged with the re-evaluation or investigation. This decision is final.

IV Appeals

1. Both the student and the instructor have a right of appeal on procedural grounds only against a re-evaluation decision.
2. Such an appeal will be made to the Dean, normally within 14 days of the announcement of the decision by the Chair. Each appeal, explaining the reasons for the appeal, must be submitted in writing on the appropriate form.
3. It is the responsibility of the Dean to inform the student or the instructor, the Chair, and the Registrar that an appeal has been received.
4. The Dean will refer the appeal to the Faculty Appeal Committee, a standing committee of Faculty Council.
5. The Faculty Appeal Committee, composed of an equal number of faculty and students, will choose a Chair from outside the Committee.
6. (a) The Faculty Appeal Committee will deal with the appeal as it deems necessary to decide whether the re-evaluation procedure was correctly followed.
   (b) Both the student and the instructor have the right to be present at the hearing of the appeal, to address the Committee, and to present witnesses. The student may be accompanied by an adviser from within the University who may speak on his or her behalf. Following the hearing, the Committee will deliberate in private.
7. The decision will normally be rendered within 21 days of the lodging of an appeal. If the Faculty Appeal Committee finds that the re-evaluation procedure was not correctly followed, it will instruct the Department Chair to arrange for a fresh re-evaluation.
8. There is no further appeal once the Faculty Appeal Committee has rendered its decision.
9. It is the responsibility of the Committee to inform the student, the instructor, the Chair, the Dean, and the Registrar of the decision.

Students must present a valid student identification card to take any examination.

16.3.9
Examinations

I. Final Examinations

1. Academic Calendar §11 lists the official examination periods.
2. Examination schedules are posted at various locations in the University.
3. Since special arrangements cannot be made in the event of personal time conflicts, students should not make personal commitments for the examination periods until after the final examination schedule is posted.
4. When the final examination schedule indicates that a student must write examinations in three consecutive time blocks (e.g. morning, afternoon and evening or afternoon, evening and morning), students should contact the Registration and Examinations Office. The Registration and Examinations Office will make every effort to reschedule or defer one of the examinations provided they are advised by the deadline. (See Academic Calendar §11)
5. No candidate will be permitted to enter an examination room one hour after the examination period has begun, or to leave during the first hour of the examination.
6. In the Fall and Winter terms, no tests or examinations are permitted in the final week of classes. Any exceptions must be approved in advance by the appropriate Faculty Council.

II. Supplemental and Replacement Examinations

Supplemental examinations are special final examinations offered in some courses for students who have not written or who have failed the original final examination. Replacement examinations are those offered to students who did not write a final examination for medical reasons.

1. **Supplemental Examinations – Regulations**
   a) Each Faculty determines for which of its courses a supplemental examination is offered.
   b) A student must be in acceptable standing in order to write a supplemental examination.
   c) Whether or not a supplemental examination is written, the original grade for the course ("F","F/DNW") will remain permanently on the student's academic record and transcript.
   d) The grade for a supplemental examination is counted as a second attempt at the course. The grades from both attempts are included in calculating Grade Point Averages and assessments of academic standing.
   e) A student who fails a supplemental examination is given a grade of "R". A student who does not write a supplemental examination is not assigned a second failing grade for the course.
   f) **With the exception of students registered in an Engineering programme**, a student who does not write a supplemental examination for medical, or other serious reasons, may re-apply to write the supplemental examination for that course during the next scheduled supplemental examination period. A student who does not write either of these supplemental examinations for medical or other serious reasons, must repeat the course to obtain credit. **(Students in Engineering programmes have only one opportunity to write a supplemental examination.)**

g) A student is permitted to write only one supplemental examination for a course, whether or not the course is being repeated.

h) A student who has received a passing grade for a course may not write a supplemental examination for that course.

i) A student who has received an "NR" or "R" grade may not write a supplemental examination for that course.

2. Replacement Examinations – Regulations

a) A student who did not write a final examination and has submitted an acceptable medical certificate or equivalent document is permitted to write a replacement examination.

b) A replacement examination counts for the same weight in the course evaluation scheme and covers the same course material as the original examination.

c) A student **(unless registered in an Engineering programme)** who does not write a replacement examination for medical or other serious reasons, may apply to write another replacement examination during the next scheduled supplemental/replacement examination period.

d) A student who does not write either of the two scheduled replacement examinations for the same course for medical or other serious reasons, must repeat the course to obtain credit. **(Students in Engineering programmes have only one opportunity to write a replacement examination.)** Such students are not eligible to write a supplemental examination.

e) When a student does not write a replacement examination without acceptable medical or other serious reasons, no further examination, replacement or supplemental, will be scheduled.

f) When a replacement examination is not written, the "MED" notation (e.g. "MED/DNW") will appear permanently on the student's academic record and transcript.

g) When a replacement examination has been written and evaluated, the mark is added to the student's marks for other course work. The resulting final grade will replace the "MED" notation on the student's academic record and transcript.

h) A student **(unless registered in an Engineering programme)** who fails a course after writing a replacement examination, may have one opportunity to write a supplemental examination, if available, during the next scheduled supplemental/replacement examination period.

i) A student cannot write a replacement examination in a course graded "R" or "NR".

3. Applications for Supplemental and Replacement Examinations

a) Applications to write supplemental examinations are available from the Birks Student Service Centre. There is a $25 fee for each supplemental examination. Applications for replacement examinations are handled by the Registration and Examinations Office. There is a $25 application fee per replacement examination. This application fee is refundable only if the student writes the replacement examination.

b) Supplemental and replacement examinations for fall- and winter-term courses are normally written in August. For summer-session courses, they are normally written in October. Graduating students may apply to write supplemental or replacement examinations for fall-term courses in February. The application deadlines are:

June 15:	Fall- and Winter-term courses
September 21:	Summer Session
February 1:	Graduating students (Fall-term courses only)

c) In some circumstances, a student who will not be in the Montréal area during the supplemental period for regular-session courses (i.e. August), can write a supplemental or replacement examination at another university in Canada. A student who wishes to write at an external centre must complete an application form, available from the Registration and Examinations Office, by June 1. External supplemental or replacement examinations cannot be written outside Canada. There is a $10 fee for mailing and handling external examinations. The student is responsible for any fees that may be charged by an external centre.

Students who are taken ill during an examination and who cannot finish the examination should go immediately to the University Health Services (Monday-Friday, 9:00-5:00), to a hospital emergency department, or to their own physician. They should request a medical certificate and submit it to the Examinations Office within 10 days. (See Medical "MED" Notations §16.3.7)

16.3.10 Academic Performance

I. Performance Regulations

Students are required to maintain an acceptable standard of scholarship. Each student's academic standing is assessed at the end of every year, either on the basis of an Annual Weighted Grade Point Average (WGPA) as defined below, or for students in the Faculty of Fine Arts, on the basis of the ratio of credits failed to credits passed.

The specific regulations applicable to students registered in each Faculty can be found in the following sections of the Calendar:

Faculty	See Calendar Section	System Used
Faculty of Arts and Science	31.003.1	WGPA
Faculty of Commerce and Administration	61.20.5	WGPA
Faculty of Engineering and Computer Science	71.10.3	WGPA
Faculty of Fine Arts	81.20.4	No. of Failures

These regulations may be modified in the case of students transferring either between Faculties or from another university.

II. Annual Weighted Grade Point Average

An Annual Weighted Grade Point Average (WGPA) for each student is calculated at the end of each academic year (including the Summer, Fall and Winter terms), provided that the student has attempted a minimum of 12 credits. If the student has attempted fewer than 12 credits, these credits will be included in the assessment for the following academic year.

When a student transfers from one programme to another, the WGPA is calculated only for courses recorded in the current programme. Special regulations for graduating students may be specified in each Faculty's regulations.

Grades for supplemental and replacement examinations and for late completion of courses with "INC" or "MED" notations are included in the assessment period in which they are recorded.

In the Faculty of Engineering and Computer Science, prerequisite courses required for admission to a programme will not be counted unless they are specifically listed on the student's acceptance letter.

The WGPA is calculated as follows:

First, for each course attempted, the number of credits for the course is multiplied by the grade points obtained for the course, as specified in §16.3.3. Then, the sum of the grade points for all courses is divided by the total credits attempted.

$$\text{WGPA} = \frac{\Sigma\ (\text{course credits} \times \text{grade points})}{\Sigma\ (\text{credits attempted})}$$

Example:

Course	Grade Achieved	Credit Value		Grade Points*		Weighted Grade Points
AA	D	3.00	X	1.00	=	3.00
BB	C+	3.00	X	2.30	=	6.90
CC	B	2.00	X	3.00	=	6.00
DD	A-	6.00	X	3.70	=	22.20
EE	F	3.00	X	0.00	=	0.00
	Total Credits Attempted	17.00			Total Weighted Grade Points	38.10

$$\text{WGPA} = \frac{38.10}{17.00} = 2.24$$

** As detailed in §16.3.3*

III. Qualifying Programmes and Visiting Students

Students registered in Qualifying Programmes or as Visiting students are subject to the regulations of the Faculty in which they are registered.

IV. Independent Students

1. Independent students are subject to the same Grade Point Average requirements as students registered in programmes offered by the Faculty of Arts and Science. (See §31.003.1)
2. Independent students who are classified as failed may not re-register without permission of the Registrar.

V. Regulations for Failed Students and Students in Conditional Standing

1. Failed students or students in conditional standing are not eligible to write supplemental examinations.

2. Undergraduate students who are classified as failed may not re-register as Independent students.

VI. Recording of Failed and Conditional Standing

Failed standing is noted on the student's academic record and transcript. In the event that a student is subsequently readmitted, previous failed standing will appear only on the record. Conditional standing is noted on records only.

16.3.11
High Academic Achievement

A degree "With Distinction" or "With Great Distinction" will be awarded to students who obtain Graduation Grade Point Averages (GGPA) of at least 3.40 or 4.00 respectively.
The Graduation Grade Point Average for students in the Faculty of Arts and Science, the Faculty of Commerce and Administration, and the Faculty of Fine Arts is calculated over the last 90 credits, as determined by guidelines of the Office of the Registrar. The Graduation Grade Point Average for students in the Faculty of Engineering and Computer Science is calculated over the entire programme. Additional credits in extended programmes are not normally included in any calculation. In the case of transfer students, all courses taken at Concordia will be included in calculating the Graduation GPA, but the student must have taken a minimum of 60 credits at Concordia to be eligible for either award.

16.3.12
Repetition of Courses

1. In general, a student may repeat a failed course only once. However, a student who fails a required course twice may appeal to the appropriate Student Request Committee for permission to take the course a third time or for permission to replace the course with another. Unless permission is granted, the student will not be allowed to continue in the University towards that programme and/or degree.
2. A student who has received a passing grade for a course may repeat the course for personal reasons (e.g. to meet an external requirement). The student's record and transcript will include both grades but the second grade will carry no credit value. The original grade for the course will be used for calculating the Graduation GPA. For students in the Faculty of Engineering and Computer Science who have been required to repeat courses graded "D", both grades are included in the Graduation GPA.
3. A student who fails a required course must repeat the course during the next session for which she or he registers. If a student fails a required course in the Summer Session and a supplemental examination is available, re-registration for the course may be postponed until after the supplemental examination period for summer-session courses.

16.3.13
Code of Conduct (Academic)

I. Preamble

1. In order to maintain the integrity of the academic processes of the University, all students are expected to be honest in all their academic endeavours and their relationships with the University.
2. This Code defines the offences that constitute academic misconduct and sets out the procedures used to deal with those offences.
3. Wherever there is doubt or ambiguity regarding any provision in this Code, or the procedure to be followed, that interpretation or procedure is adopted which appears most equitable and consistent with its general purposes and philosophy. Except for those terms defined hereunder, the terms used in this Code have their usual meanings.

II. Definitions

In this Code, unless the context indicates otherwise:

1. *Academic misconduct* means any form of dishonest behaviour related to the obtainment of academic gain or to the avoidance of evaluative exercises.
   It includes, but is not limited to, cheating, plagiarism, personation at an examination, falsification, and multiple submission, and applies to any form of evaluative exercise.
2. *Chair* means the Chair of the Department or the head of an equivalent academic unit in which the alleged act of academic misconduct occurred.
3. *Cheating* means any dishonest or deceptive practice relating to an examination, test, or other evaluative exercise. It may include, but is not limited to:
   a) possessing or making use of a book, paper, script, writing, drawing, or other material or equipment not expressly authorized by those conducting the examination;
   b) possessing a device allowing access to or use of any of the materials or equipment identified in sub-paragraph a);
   c) communicating with anyone other than an invigilator during an examination;
   d) tearing or mutilating an examination booklet, or taking a booklet from the examination room.

4. *Dean* means:
   a) the Dean of the Faculty offering the programme in which the student is, or seeks to be, registered; or,
   b) if the student is not registered in a programme, the Dean of the Faculty providing the course concerned; or, in the event that the offence is not related to a particular course, the Dean of the Faculty providing the majority of courses on the student's record; or,
   c) if the student is a graduate student, the Dean of the School of Graduate Studies.
5. *Examination* means any invigilated evaluative exercise.
6. *Falsification* means falsifying or forging academically related documents or other records or using such documents. Academically related documents and other records include, but are not limited to:
   a) University records, transcripts, or other academic data;
   b) documents issued by a physician or by another person or institution and submitted to the University.
7. *Hearing Committee:* If the student is an undergraduate student, the Hearing Committee is composed of:
   a) a Chair, appointed by the Dean; and,
   b) two faculty members and two undergraduate students, all appointed by the Dean from a panel made up of full-time faculty members named by Faculty Council, and of undergraduate students registered in the Faculty, named by the appropriate student association.

   If the student is a graduate student, the Hearing Committee is made up of three faculty members and two graduate students appointed by the Council of the School of Graduate Studies. The Dean appoints a Chair of the Hearing Committee from among the committee members.
8. *Instructor* means the instructor of the course in which the alleged act of academic misconduct occurred.
9. *Multiple submission* means submitting a piece of work or an important part of a piece of work for credit when that work has been, or is concurrently being, submitted for credit in another course, without the knowledge and permission of the instructor or instructors involved.
10. *Personation* means assuming the identity of another person or knowingly having another person assume one's own identity at an examination or other evaluative exercise.
11. *Plagiarism* means the presentation by a student of the work of another person as his or her own; it includes copying, translating, and paraphrasing without acknowledgment of the source.
12. *Sanction* means:
    a) reprimand;
    b) work to be resubmitted with appropriate changes;
    c) failing grade in the work submitted; or
    d) failing grade in the course for which the work was submitted.
13. *Year* means:
    a) a period beginning on September 1 and ending on August 31 if the academic misconduct occurred during the Regular Session; or
    b) a period beginning on May 1, and ending on April 30, if the academic misconduct occurred during the Summer Session.

III. Offences

1. Academic misconduct is an offence under the present Code. It shall be dealt with in accordance with the procedure set out hereunder.
2. Any attempt, conspiracy, participation, or possession related in any way to academic misconduct is also an offence under the present Code and shall be dealt with in accordance with the procedure set out hereunder.

IV. Procedure

A. PROCEDURE RELATING TO PLAGIARISM AND MULTIPLE SUBMISSION

1. *Instructor meets with student:* If an instructor has reason to believe that a student has committed an act of plagiarism or multiple submission, the instructor informs the student and discusses the circumstances of the matter with him or her.
2. *Agreement as to satisfactory resolution reached:* When an agreement can be reached between the instructor and the student as to a satisfactory resolution, which may include an appropriate sanction, the matter is settled.
3. *Matter referred to the Chair:* If no satisfactory resolution has been reached and the instructor is still of the opinion that the student has committed an act of plagiarism or multiple submission, the matter is referred in writing to the Chair.
4. *Meeting with the Chair:* The Chair meets with the instructor and the student in order to discuss the circumstances of the matter.
5. *Agreement as to satisfactory resolution reached with Chair:* If an agreement can be reached

between the Chair, the instructor, and the student as to a satisfactory resolution, which may include an appropriate sanction, the matter is settled.

6. *Formal charge:* If no satisfactory resolution has been reached, and the Chair is of the opinion that the student has committed an act of plagiarism or multiple submission, the Chair shall so inform the Registrar and recommend that a formal charge of academic misconduct be laid in accordance with the provisions set out below. The Chair shall send a copy of such recommendation to the Dean.

B. PROCEDURE RELATING TO FORMAL CHARGES OF ACADEMIC MISCONDUCT

1. A person who suspects a student of academic misconduct delivers to the Registrar as soon as possible a written report setting out the grounds for the suspicion, together with any statement made by the student and other relevant material. The Registrar shall send a copy of this report to the Dean.
2. The Registrar shall consider if the laying of a charge of academic misconduct is appropriate. If the Registrar decides to lay a charge, the procedure set out in the following subsections shall apply.
   If the Registrar decides not to lay a charge, the Dean may refer the matter to the Vice-Rector, Academic, who may direct that a charge be laid.
   When a decision is made not to lay a charge, the Registrar or the Vice-Rector, Academic, as the case may be, informs the student in writing.
3. *Form of the charge:* The formal charge must be precise and substantiated; it is made in writing, dated and signed, and is sent to the Dean.
4. *Copy of formal charge sent to student:* The Dean sends a copy of the formal charge to the student and inquires in writing whether the charge is admitted or denied by the student.
5. *Student answers charge:* The student has 21 calendar days to admit or deny the charge in writing.
6. *Student admits charge:* When the student admits the charge, the Dean applies the penalty set out in Article V below.
7. *Student does not admit charge or fails to respond:* When the student does not admit or fails to respond to the charge, the Dean arranges for the setting up of a Hearing Committee and gives to the student a written 14 calendar days notice of the date, time, and location of the hearing. Said hearing is to be held as soon as reasonably possible after the laying of the charge, and in any event no later than 90 calendar days after the laying of the charge.
   If the said hearing does not take place within the prescribed 90 calendar days, through no fault of the student, the complaint fails and the charge against the student is withdrawn.
8. *Conduct of the hearing:* The student and the Registrar (or a delegate of the Registrar), in the case of a charge of cheating or other academic misconduct, have the right to be present at the hearing of the charge, to address the Committee, and to present witnesses. In the case of a charge of plagiarism or multiple submission, the student, the instructor, and the Chair have such a right. The student may be accompanied by an adviser from within the University who may speak on his or her behalf. Following the hearing the Committee will deliberate in private.
9. *Written and reasoned report sent to Dean:* The Hearing Committee sends a written and reasoned report to the Dean on whether or not the student acted as charged. Should the student be found to have acted as charged, the Hearing Committee may recommend one or more of the penalties set out in Article V below.
10. *Dean imposes penalty:* If the Hearing Committee upholds the charge or part thereof, the Dean shall impose the penalty set out in Article V hereunder, depending on the circumstances of the case.
11. *Dean informs student:* The Dean sends to the student and the Registrar and, if appropriate, to the instructor and the Chair, a copy of the report of the Hearing Committee and, where applicable, a written statement of the penalty imposed. In cases where the said penalty is different from one recommended by the Hearing Committee, the Dean provides the reasons in support of the decision.
    The Dean also informs the student of his or her right of appeal, indicating the date and time of the deadline for an appeal to be filed and the name of the person to whom a notice of appeal is to be delivered.
12. *Appeal to the Senate Appeals Committee on Academic Misconduct (SACAM):* The student and the Registrar have a right of appeal to SACAM against the decision of the Hearing Committee or the penalty, or both. The notice of such appeal is made in writing within 21 calendar days of the sending of the decision and forwarded to the secretary of Senate. It must specify the grounds of appeal.
    If the student or the Registrar appeals the penalty, the student may apply to SACAM for permission to be exempted from the penalty imposed by the Dean pending the outcome of the appeal. Such an application must be treated as an urgent matter and a decision made within 14 calendar days of the receipt of the application. The decision to exempt the student may be made subject to such terms and conditions as SACAM deems appropriate.

13. *Hearing by SACAM:* The hearing by SACAM must be held as soon as reasonably possible after rendering of the decision appealed from, but in any event within 90 calendar days of the date of the decision rendered by the Dean. The secretary gives the student a 14 calendar days written notice of the day, time, and location of the hearing.
Subject to the provisions set out in Article VII, paragraph 1, if through no fault of the student the appeal hearing does not take place within the 90 calendar days herein prescribed:
    a) when the student is the party appealing the decision, the appeal will be considered as upheld;
    b) when the Registrar is the party appealing the decision, the complaint fails and the charge is withdrawn.
14. *Decision of SACAM:* SACAM may confirm, quash, or modify the decision or the penalty under appeal and its decision is final. It is made in writing and must be reasoned; it is sent to the student, to the Registrar, and to the Dean.

V. Penalties

1. *Imposition of Penalties:* Where a formal charge has been laid and a student admits to or is found guilty of academic misconduct, the penalty is one or more of the following:
    a) *failing grade* — a failing grade for the course in which the academic misconduct occurred;
    b) *failing grade and further ineligibility* — a failing grade and ineligibility for a supplemental examination or any other evaluative exercise for the course;
    c) *additional courses to be followed* — the obligation to take and pass courses of from three to 24 credits in addition to the total number of credits required for the programme; the courses to be taken may be specified;
    d) *suspension* — suspension from the University for the remainder of the year;
    e) *suspension for additional period* — suspension for the remainder of the year and for an additional period of not more than one year;
    f) *expulsion* — expulsion from the University.
2. *Application for readmission:* If a suspended student fails the year in which he or she was suspended and wishes to be readmitted thereafter, that student must apply for readmission.
3. *Repetition:* Should a student either admit or be found to have committed a second act of academic misconduct, that student shall be expelled from the University.
4. *Confirmation by Rector:* A sentence of suspension or expulsion is subject to confirmation by the Rector.

VI. Special Provisions Governing the Conduct of Examinations

1. Every examination paper expressly lists the materials and equipment that a student is permitted to have and use during the examination and indicates any special conditions relating to the examination.
2. Except if expressly authorized by those conducting the examination, a student in the examination area cannot speak or otherwise communicate with any person other than an invigilator.
3. A student who is suspected of academic misconduct during an examination is so informed by the invigilator and is required to leave the examination area immediately. The invigilator keeps the student's examination booklet as well as any other evidence relating to the suspected act of academic misconduct.
4. In examinations invigilated by the Office of the Registrar, the student is requested in a written statement to choose one of the following options:
    a) to withdraw from the examination with the understanding that if a charge of academic misconduct is not laid or upheld, the student will be permitted to take another examination for the same course at a mutually agreed time;
    b) to continue the examination under controlled conditions in another location, in which case the invigilator provides a fresh examination booklet for the purpose and allows additional time for the examination to compensate for any time lost.

    The student is asked to sign a statement indicating which option was chosen. If the student does not indicate a choice by signing the statement, he or she is considered to have chosen to withdraw from the examination.
5. In the case of examinations not invigilated by the Office of the Registrar, the student will be required to withdraw from the examination, but will be permitted to request permission to take another examination on the same subject-matter. Such permission will be granted through the Office of the Registrar, which will arrange an alternative evaluative exercise within 14 calendar days of the student having been asked to withdraw from the examination.
    If the charge of academic misconduct is not laid or is not upheld, and if another examination on the same subject-matter has not already been written, the student will be permitted to arrange, through the Office of the Registrar, to take another examination at a mutually agreed time.
6. It is the duty of an invigilator to report to the Registrar any apparent incident of suspected academic misconduct.

7. As soon as possible, the invigilator delivers a written statement setting out the grounds for his or her suspicions to the Registrar. The invigilator attaches the student's examination booklet, the student's statement, if any, and other relevant material.
8. If anyone grading an examination finds reason to suspect a student of academic misconduct, he or she delivers a written statement explaining the reasons for the suspicion to the Registrar, as soon as possible. The student's examination booklet and any other relevant material is attached.

VII. Final Provisions

1. *Extension of Delays:* In exceptional circumstances where the appellant can demonstrate that it was impossible to file an appeal within the prescribed delay, SACAM may allow the appeal to be filed past the deadline.
   If the 90 calendar day deadline for hearing a case before a Hearing Committee or SACAM falls on a date in July, August, or September, the Committee concerned may decide to extend the deadline to the same date in the month of October. The Chair of a Hearing Committee or the secretary of Senate, as the case may be, notifies the student and other interested parties of the extension.
2. *Written notice:*
   a) Any written notice addressed to a student under this Code is sent by registered or certified mail to the last address given to the University.
   b) A student involved in proceedings under the present Code must provide a current mailing address to the University, and must notify the University promptly of any change of address.
   c) Students are advised to send all correspondence under this Code by registered or certified mail.

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rights and responsibilities

17.1 *CODE OF RIGHTS AND RESPONSIBILITIES*

17.2 *TERMS OF REFERENCE OF THE OMBUDS OFFICE*

section 17

17 RIGHTS AND RESPONSIBILITIES

Advisor on Rights and Responsibilities
T.B.A.

Ombudspersons
SUZANNE BELSON
BEATRICE PEARSON

Location

Sir George Williams Campus
Ombuds Office
Annex PR, Room: 100
(514) 848-4964

17.1 CODE OF RIGHTS AND RESPONSIBILITIES

Scope

Code Applies to All Members of the University

1. This Code applies to all members of the University, that is, faculty members, administrative and support staff, and students. The process for the formal resolution of complaints made against students is distinct from the process for the formal resolution of complaints made against faculty members and administrative and support staff.

Contractors, Their Employees and Visitors

2. Contractors, their employees and representatives, and visitors to the University are expected to conduct themselves in any University-related activity in a manner consistent with this policy. Violations of this Code by such persons may be dealt with as potential breaches of contract or may result in suspension of University privileges, such as access to campus. Should such persons believe that they have been subjected to conduct on campus in violation of this Code, they may consult the Office of Rights and Responsibilities for advice.

Code Does Not Supersede Other Policies or Agreements

3. Nothing in this Code shall replace or supersede complaint, grievance or appeal procedures set out in any collective agreement to which Concordia University is a party, the Code of Conduct (Academic), the University Calendars or the University Policy Manuals.

Jurisdiction

4. Complaints with respect to a violation of this Code may be made by members of the University in relation to the conduct of other members where the complainant is directly affected by the conduct in question. As well, the University, through its designated officers, may make a complaint on its own behalf. The alleged violation must have taken place on University premises, either rented or owned, or on other premises, in the course of any University-sponsored activity or event. Exceptionally, complaints may be made regarding an alleged violation that has taken place at another location, where the potential consequences of the violation may adversely affect the complainant's course of work or study at the University.

Preamble

Rights

5. All faculty members, administrative and support staff, and students may reasonably expect to pursue their work and studies in a safe and civil environment. Concordia University therefore does not condone discrimination, harassment, sexual harassment, threatening or violent conduct or offenses against property. Such conduct is defined in articles 15 to 19.

Responsibilities

6. All faculty members, administrative and support staff, and students are expected to refrain from violating this Code. Members of the University who have supervisory authority over others bear a particular responsibility to act in a timely and effective manner if they become aware of any violation of this Code.

Assistance From the Office of Rights and Responsibilities

7. This Code establishes the Office of Rights and Responsibilities, whose mandate is to assist University members in resolving incidents involving an alleged violation of this Code, in an effective and constructive manner. Such assistance is available both to individuals who believe that they have been subjected to conduct that violates this Code, and to those with supervisory authority who are called upon to respond to incidents of such conduct.

Complaints Subject to a Range of Responses

8. In keeping with its desire to settle conflicts in an effective and constructive manner, the University shall endeavour to seek an appropriate response to any alleged violations of this Code, ranging from the use of alternate methods of conflict resolution to formal procedures for adjudicating complaints. If a violation has occurred, every attempt shall be made to use remedies and sanctions that restore harmony, collegiality and cooperation between members.

Informing the Community

9. The Office of Rights and Responsibilities, together with the Advisory Committee on Rights and Responsibilities, shall undertake to inform all members of the University of the provisions of this Code and the services provided by the Advisor.

Fairness and Consistency

10. Complaints made under this Code shall be adjudicated in a manner that is consistent with the principles of natural justice and fair for all parties to the complaint, regardless of constituency. The principles of natural justice may be defined broadly as the obligation to hear the other side and to make a decision untainted by bias.

Academic Freedom

11. This Code is not to be applied in such a way as to detract from the right of faculty members, administrative and support staff, and students to engage in the frank discussion of potentially controversial matters, such as race, sex, sexual orientation, politics or religion. Further, the Code should not be interpreted in such a way as to limit the use of legitimate instructional techniques, such as irony, argument, conjecture and refutation, or the assignment of readings which may present a controversial point of view. This Code also recognises the right to teach according to one's best judgement, within the bounds of the course calendar description and requirements of competency.

Management Rights

12. This Code is not to be applied in such a way as to detract from the right and duty of those with supervisory authority to manage, and if necessary to discipline, faculty, administrative and support staff, and students in accordance with collective agreements and University policies and procedures.

Union Rights

13. This Code is not to be applied in such a way as to detract from the rights of unions to defend the interests of their members and to exercise their rights under a collective agreement.

Recourse at Law

14. This Code does not detract from the right of members to seek recourse at law.

Definitions

Discrimination

15. Discrimination is defined as treatment which:
    i) has the effect or purpose of imposing burdens, obligations or disadvantages on members or groups of members; *and*
    ii) for which there is no bona fide and reasonable justification; *and*
    iii) when such treatment is based on one of the prohibited grounds specified in the Québec Charter of Human Rights and Freedoms, that is: race, colour, ethnic or national origin, sex, pregnancy, sexual orientation, civil status, age, religion, political convictions, language, social condition, handicap or the use of a means to palliate a handicap.

Harassment

16. Harassment is defined as:
    i) unwelcome, vexatious conduct, directed towards a member or group of members; *and*
    ii) which may or may not be based upon one of the prohibited grounds specified in article 15, iii); *and*
    iii) when such conduct has the effect or purpose of unreasonably interfering with a member's work or academic, athletic or artistic performance or of creating an intimidating or hostile environment for work or study.

Sexual Harassment

17. Sexual harassment is defined as conduct of a sexual nature such as, but not limited to, sexual assault, verbal abuse or threats of a sexual nature, unwelcome sexual invitations or requests, demands for sexual favours or unwelcome and repeated innuendos or taunting about a member's body or appearance when:

i) submission to such conduct is made, whether explicitly or implicitly, a term or condition of a member's employment or educational progress; *or*

ii) submission to or rejection of such conduct is used as the basis for an employment or academic decision affecting that member; *or*

iii) when such conduct has the effect or purpose of unreasonably interfering with a member's work or academic, athletic or artistic performance or of creating an intimidating or hostile environment for work or study.

Threatening or Violent Conduct

18. Threatening or violent conduct is defined as:
    i) assaulting another member; *or*
    ii) threatening another member or group of members with bodily harm or causing another member or group of members to have reasonable grounds to fear bodily harm; *or*
    iii) creating, or threatening to create, a condition which unnecessarily endangers or threatens the health, safety or well-being of another member or group of members or threatens the damage or destruction of property.

Offenses Against Property

19. Offenses against property are defined as wilfully or recklessly taking, having unauthorized possession of, damaging or destroying any property belonging:
    i) to the University; *or*
    ii) to any member when such property is on University premises or on other premises during the course of a University-sponsored activity or event.

Informal Resolution of Complaints

Consultation With the Advisor on Rights and Responsibilities

20. The Advisor on Rights and Responsibilities shall be impartial in the exercise of his/her functions, and shall respect the confidentiality of all parties to any matter in which the Advisor has been requested to assist.

21. Members of the University who believe that they have been subjected to conduct that violates this Code may consult the Advisor. The primary goal is to assist the complainant to make an informed choice as to the most appropriate method of resolution to a complaint or conflict.

22. Normally, a complaint should be made within two months of the alleged violation. This period may be extended at the discretion of the Advisor. If the person against whom the complaint is made (the respondent) is a member of a union, the Advisor shall inform the complainant of any delays regarding disciplinary procedures which may be prescribed in the respondent's collective agreement.

23. The Advisor will make a determination whether the complaint;
    a) is not within the jurisdiction of this Code, in which case the Advisor shall, if appropriate, re-direct the complainant to the relevant channels for redress; *or*
    b) is trivial, frivolous, vexatious or made in bad faith; *or*
    c) is being heard, or has already been heard by another University officer, or through another University procedure; *or*
    d) does not appear to be supported by sufficient evidence.

24. The Advisor may refuse to assist in informal resolution, or, in the case of complaints made against students, to proceed with a formal complaint, on one or more of the grounds listed in article 23.

25. Given the Advisor's agreement to proceed, the complainant shall decide upon one of the following courses of action:
    a) to proceed with informal conflict resolution; *or*
    b) to proceed with a formal process; *or*
    c) to take no further action; *or*
    d) to pursue any other course of action available at law, under a collective agreement or under any other University policies or procedures.

Procedures for Informal Resolution

26. Should the complainant opt to proceed with informal conflict resolution, he/she shall authorize the Advisor to take steps to attempt an informal resolution of the complaint. Such steps may take a variety of forms, for example, helping to clarify perceptions, raising awareness of the impact of certain conduct, reconciling differences or sorting out misunderstandings. The parties may be brought together or communication may be effected through the Advisor.

27. Some situations lend themselves to structured mediation. If both parties agree to try this method, the Advisor may personally act as mediator, or may assist the parties in obtaining the services of another member of the University who is qualified to perform this function.

28. Any informal agreement reached between the parties is entirely voluntary. Neither the Advisor nor any other mediator has authority to impose conditions or sanctions upon either party.

29. The complainant may withdraw the complaint at any point during the process of informal resolution. As well, the Advisor may withdraw from the informal process if he/she determines that no useful purpose will be achieved by continuing to attempt informal resolution.

30. Normally, attempts at informal resolution shall not last longer than three months.

Files of Complaints Resolved Informally

31. Upon completion of the informal process, the Advisor shall prepare a summary of the matter, but shall remove all information identifying the parties from the file.

Procedures for Adjudicating Formal Complaints Made Against Students

32. Formal complaints against students shall be adjudicated by a Hearing Panel selected from the Student Hearing Board pool.

Structure of the Student Hearing Board

33. A permanent Secretary of the Student Hearing Board (the Secretary) shall be appointed by the Secretary-General. The Secretary shall be responsible for the administrative functioning of the Student Hearing Board and shall maintain the confidential files and recordings of proceedings of the Student Hearing Board.

34. A permanent Selection Committee shall be struck by the Secretary. It shall be composed of the Secretary, the Dean of Students and a representative from each of the recognized student associations. The Selection Committee shall recruit, screen and appoint student members to the pool of the Student Hearing Board. The Selection Committee shall also appoint the Chair and Alternate Chair(s) of the Student Hearing Board.

35. Normally, appointments shall be made for a two-year term which is renewable. The terms shall run from June 1 to May 31. Every effort shall be made to stagger the appointments so as to ensure continuity.

36. The role of the Chair and Alternate Chair(s), outlined below, requires impartiality and particular skills which take time to develop and cannot easily be acquired by lay persons during a brief term of office. As such, the Chair and Alternate Chair(s) shall normally be selected from qualified alumni or emeriti who have training in law or tribunal procedures as well as some knowledge of the University environment.

37. A minimum pool of six (6) students composed of both undergraduate and graduate students shall be maintained, any three of whom shall sit on a given Hearing Panel as selected by the Secretary.

38. The members of the Student Hearing Board shall receive annual training, prepared and conducted jointly by the Advisor, the Director of Advocacy and Support Services and the University Legal Counsel. Student panellists shall receive training before being selected to serve on any panel.

Initiating a Formal Complaint Against a Student

39. A complainant may opt to proceed directly to a formal complaint at the outset (article 25) or after an attempt at informal conflict resolution has been unsuccessful. If the Advisor has refused to proceed with a formal complaint on the grounds listed in article 23, the complainant may appeal such a refusal by submitting a request in writing. The Advisor shall forward the request, together with a written explanation of the refusal, to the Secretary of the Student Hearing Board, who shall convene a Hearing Panel to decide the issue. The decision of a Hearing Panel is final.

40. In the event that a formal complaint proceeds, the following articles shall apply:

41. The Advisor shall inform the complainant of the following:
    a) the required format for submitting the complaint, which must be made in writing, signed and dated, and must identify the respondent and the precise nature of the complaint;

b) the procedures which shall be followed by a Hearing Panel;
c) the right of the complainant and the respondent to consult any person in the preparation of his/her case, and to be accompanied or represented before a Hearing Panel by any member of the University community. If the complainant is a student, he/she also has the option of obtaining an advisor through the services of Advocacy and Support Services;
d) the right of appeal.

42. Upon receipt of the written complaint, the Advisor shall immediately notify the respondent. The respondent shall receive a copy of the complaint together with the information detailed in article 41 b), c) and d).

43. Concurrent with the notification sent to the respondent, the Advisor shall notify the Secretary who shall convene a Hearing Panel to hear the matter. Thereafter, the Secretary shall be responsible for all communications with the complainant and the respondent.

44. A Hearing Panel shall be convened as soon as possible after receipt of the notification by the Secretary and normally within twenty-five (25) working days.

45. Once a hearing date is fixed by the Secretary, the complainant shall submit any additional documentation substantiating his/her case to the Secretary no later than fifteen (15) working days before the scheduled hearing date. Such documentation shall include any supporting documents and a list of the witnesses, if any, that will appear. The Secretary shall forward the documentation together with a list of the panellists selected for the case to the respondent no later than ten (10) working days before the scheduled hearing date. The list of panellists shall also be sent to the complainant.

46. Either party may object to the participation of a panellist on the grounds of potential bias. A reasoned objection shall be filed with the Secretary who shall arrange for an alternate panellist to serve if he/she determines that the objection is well founded. If the Secretary feels that the objection is frivolous and the matter cannot be resolved, the issue shall be forwarded to the Chair of the Student Hearing Board who shall render a final decision in this regard.

47. A settlement may be agreed to by the parties at any time prior to the hearing. The Advisor shall be informed of the general substance of the settlement.

The Hearing

48. The Student Hearing Board shall establish its own rules of procedure. Minimally, these rules shall provide for opening statements by the parties, the presentation of evidence and witnesses, the right of cross-examination, questioning by members of the Hearing Panel, representations with respect to desired sanctions and closing statements. Hearings shall be recorded, and the cassette kept as part of the permanent record of proceedings.

49. The role of the Chair shall be to preside over the proceedings, keep order and ensure fairness. The Chair shall, as well, preside over the deliberations of the Hearing Panel but shall not vote.

50. The hearing shall be closed and confidential unless both parties have consented in writing to the attendance of members of the University community.

51. The Hearing Panel shall provide a signed, dated and reasoned decision. The standard of proof to be relied upon by the Hearing Panel shall be one of a "balance of probabilities".

Sanctions

52. The Hearing Panel may impose one or more of the following sanctions:
    a) a written reprimand;
    b) imposed conditions. The Hearing Panel does not, however, have the authority to suspend a student from any academic activity;
    c) payment as compensation for damage or loss of property. Such payment shall be added to the respondent's student account with the University should it not be paid within forty (40) working days. Payments shall not become due until after any appeal has been dealt with;
    d) subject to confirmation by the Rector or designate, suspension or expulsion.

53. The decision of the Hearing Panel shall normally be rendered within ten (10) working days of the hearing and shall be communicated in writing to both parties and the Advisor.

54. The administration and monitoring of the sanction(s) imposed shall be the responsibility of the Dean of Students. Should the respondent fail to comply with any sanction imposed under this

Code, the Dean of Students shall notify the Secretary to convene a Hearing Panel in order to determine further sanctions.

Appeals

55. A party who wishes to appeal a decision or sanction of the Hearing Panel, or both, shall apply in writing to the Appeals Committee of the Board of Governors for the authorization to lodge an appeal. An Appeals Panel, composed of three (3) members of the Appeals Committee selected by the Chair of the Appeals Committee, shall decide whether an appeal shall be heard, having regard to the circumstances of each case.

56. Such request for authorization to appeal shall be submitted to the Secretary of the Appeals Committee no later than fifteen (15) working days after the date of transmission to the parties of the decision of the Hearing Panel.

57. Such request may be based only on the grounds of discovery of new evidence following the rendering of the decision of the Hearing Panel or on the presence of serious and prejudicial procedural defects. The request shall state in clear and precise terms the grounds on which the appeal is based.

58. If the authorization to appeal is granted, the appeal shall be heard either by the same Appeals Panel which authorized the appeal, or a new Appeals Panel as determined by the Chair of the Appeals Committee, and notification of such shall be sent to both parties.

59. The Appeals Panel has the authority to confirm, reverse or modify the decision being appealed. Further, should the appeal be based on the production of new evidence, the Appeals Panel may order a new hearing of the complaint by a new Hearing Panel.

60. The decision of the Appeals Panel shall be signed, dated and reasoned, and shall be sent to both parties, the Student Hearing Board Secretary, the Advisor and the members of the Hearing Panel who presided at the hearing of the complaint.

61. The decision of the Appeals Panel shall be final.

Files of Formal Complaints Against Students

62. The Advisor shall maintain a file of all formal complaints processed. The file shall include the written complaint, the decision of the Hearing Panel and the decision of the Appeals Committee, if any. If a settlement is reached prior to a hearing, the general substance of the settlement shall be included in the file. If the complaint is withdrawn at any stage of the formal process, a notation to that effect shall be recorded, but all information identifying the parties shall be removed from the record.

Procedures for Adjudicating Formal Complaints Made Against a Faculty, Administrative or Support Staff Member

63. Formal complaints made against a faculty, administrative or support staff member shall be adjudicated according to the provisions of the respondent's collective agreement or the relevant University policy.

64. A complainant may opt to proceed directly to a formal complaint at the outset (article 25) or after an attempt at informal conflict resolution has been unsuccessful.

Initiating a Complaint Against a Faculty, Administrative or Support Staff Member

65. The Advisor shall provide the complainant with the following information:
    a) the required format for submitting the complaint, which must be made in writing, signed and dated, and must identify the respondent and the precise nature of the complaint;
    b) the identity of the authority to whom the complaint shall be submitted under the terms of the respondent's collective agreement or the relevant University policy;
    c) the right of the complainant to consult any person in the preparation of his/her case, and to be accompanied or represented by any member of the University during the process of resolution. If the complainant is a student, he/she may opt to be accompanied by an advisor obtained through the services of Advocacy and Support Services. If the complainant is a member of a union, he/she may opt to be accompanied by a union representative.

66. The complainant shall submit the written complaint to the authority identified in article 65 b). The authority shall take the necessary steps to resolve the matter in such a manner as to respect the principles of natural justice and the procedures of any collective agreement or University policy which may apply. Hereinafter, the authority is responsible for all communication with the complainant and the respondent.

Communication of the Decisions Taken

67. When the matter has been decided, the authority shall notify both the complainant and the Advisor of the general substance of the decision or action that was taken as a result of the complaint.

68. If the decision or action taken by the authority does not constitute a disciplinary action as defined by the relevant collective agreement or University policy, the authority shall monitor compliance by the respondent. Once satisfied that compliance has been effected, the authority shall so inform the complainant.

69. If disciplinary action is taken and is subsequently overturned by a higher authority or by grievance and arbitration procedures, the complainant and Advisor shall be notified.

Files of Formal Complaints Against Faculty, Administrative and Support Staff Members

70. The Advisor shall maintain a file of formal complaints received against faculty, administrative or support staff members, which shall summarize the substance of the consultation with the complainant, the record of resolution as supplied by the authority and information that a sanction has been overturned through grievance or arbitration, if this is the case.

Urgent Measures

71. The University's response to any urgent situation involving threatening or violent conduct shall be coordinated by the Advisor. He/she shall take the necessary steps to convene an Ad hoc case management team (the Team) and shall thereafter coordinate the activities of the team until the situation has been resolved.

72. The Advisor's role shall be limited to that of coordination and facilitation, where necessary advising and supporting all those affected by the incident, and acting as the central link for intra-University communications relating to the incident.

73. The Advisor and the Team shall be guided by the *Protocol for the co-ordination of urgent cases of threatening or violent conduct* (the Protocol).

74. The Advisor shall be responsible for ensuring that the Protocol is revised and updated as needed, and to this end, shall consult whatever experts are appropriate. Revisions of the Protocol shall be submitted to, and approved by, the Rector.

Reporting and Responding to Urgent Situations

75. Members who are faced with an urgent situation involving threatening or violent conduct, where there is reasonable cause to believe that the safety of persons may be threatened, shall immediately contact the Security Department. The Security Department shall take whatever action is necessary to secure the safety of persons, and shall alert the Advisor to convene a Team as necessary.

76. Members shall report to the Advisor any conduct which they have reasonable cause to believe potentially threatens the safety of persons. The Advisor shall assess the situation as specified in the Protocol, consulting experts as necessary, and make recommendations as to any further action appropriate in the circumstances.

77. Any member of the University who is called to a team meeting shall respond promptly.

Temporary Suspension

78. Where a member of the faculty or administrative and support staff presents a clear and present danger to the safety of persons or to the activities of the University as a whole or of any of its individual members, the matter shall be dealt with according to the provisions of the relevant collective agreement or University policies.

79. A member against whom such action is taken may seek recourse through the grievance procedures of the relevant collective agreement or the grievance procedures contained in University policies.

80. Where a student member presents a clear and present danger to the safety of persons or to the activities of the University as a whole or of any of its individual members, the Rector or his/her delegate may suspend the student on a temporary basis, exclude the student from any University premises and take any other steps that may be appropriate. The suspending officer shall notify the Registrar, the relevant Dean and the Security Department of the terms of the suspension.

81. In such a case, the suspending officer shall immediately lay a complaint against the student under articles 40 to 54 of this Code. The regular delays of this Code shall not apply, and a preliminary hearing shall be convened by the Secretary of the Student Hearing Board within five (5) working days of the suspension order. The purpose of the hearing shall be solely to determine whether or not sufficient reason exists for the suspension. The Hearing Panel shall render its decision and inform the parties immediately following the preliminary hearing.

82. Should the suspended student be unable to attend the hearing within the prescribed delay, he/she shall notify the Secretary as soon as he/she is able to attend a hearing. Upon such notification, the Secretary shall convene a hearing as soon as possible.

83. In the event that the temporary suspension is upheld by the Hearing Panel, a further hearing into the complaint shall be held within ten (10) working days of the preliminary hearing. The Hearing Panel shall render its decision and inform the parties within three (3) working days of the hearing. The suspension shall continue until the decision has been rendered.

84. In the event that the suspension is not upheld by the Hearing Panel at the preliminary hearing, the hearing into the complaint shall proceed according to the normal delays specified in this Code.

85. In the event that the temporary suspension is not upheld, or the Hearing Panel determines that the complaint is unfounded, that decision shall not invalidate the suspending officer's prior action. However, every effort shall be made to remedy any academic disadvantage that the student may have experienced as a consequence of the temporary suspension.

86. Upon the lifting of the suspension, the Secretary shall notify the Registrar, the relevant Dean and the Security Department.

Retention of Files

87. All complaint files maintained by the Advisor shall be confidential and accessible only to the staff of the Office of Rights and Responsibilities. Such files shall be destroyed according to a retention schedule determined in accordance with provincial legislation.

Appointment and Functions of Advisor

88. The Advisor on Rights and Responsibilities shall be appointed by the Rector upon the recommendation of an advisory committee struck for this purpose. The Advisor shall report to the Rector.

89. The appointment shall be made for an initial term of two years, renewable for further terms of five years. During the fourth year of each such term the Rector shall appoint an appraisal committee which shall review the operations of the Office of Rights and Responsibilities and make recommendations to the Rector. This review shall include, but not be limited to, consultations with the internal community as well as external appraisal.

90. The Advisor shall direct the operations of the Office of Rights and Responsibilities, and carry out all duties described in this Code.

91. The Advisor shall submit an annual report to the Rector by September 30 of each year. The report shall detail the activities of the Office of Rights and Responsibilities, including statistics on all complaints received, and make recommendations, as necessary, with regard to either the Code of Rights and Responsibilities or the operations of the Office. The annual report shall be published in the University's newspaper.

Complaints Relating to Operations of the Office of Rights and Responsibilities

92. If a member considers that the Advisor has failed to follow the procedures outlined in this Code, with respect to any matter to which the member has been a party, he/she may submit a written complaint, detailing the alleged procedural failure, to the Rector. The Rector shall investigate the complaint and inform the member of the results of the investigation.

The Advisory Committee on Rights and Responsibilities

93. The Rector shall appoint an Advisory Committee on Rights and Responsibilities (the Committee) composed of the following members:
    i) one (1) student member, nominated by the undergraduate student association;
    ii) one (1) student member, nominated by the graduate student association;
    iii) one (1) administrative and support staff member nominated by the electoral college;
    iv) one (1) full-time faculty member nominated by the full-time faculty association;
    v) one (1) part-time faculty member nominated by the part-time faculty association;

vi) the Advisor, ex-officio;
vii) a delegate of the Rector as Chair;

94. Appointments shall be for two years, renewable for one further term.

95. The mandate of the Committee shall be to:
a) assist in the development and implementation of activities to disseminate information about this Code, as envisaged in article 9;
b) make recommendations to the Rector on the continued development of the Code of Rights and Responsibilities, as necessary;
c) receive the annual report and make any representations to the Rector with regard to its content, as necessary.

96. The Committee shall meet at the call of the Chair, or at the call of any three (3) members of the committee, but no less than twice per academic year.

97. The Advisor shall respect the confidentiality of all nominative information relating to cases or complaints during discussions with the Committee.

17.2 TERMS OF REFERENCE OF THE OMBUDS OFFICE

Scope

1. The Ombuds Office shall be independent of all existing administrative structures of the University. The Ombudspersons may help to resolve problems informally and may inquire into any University-related concerns or complaints. As well, they may inquire into the application of any policy, rule or procedure of the University. However, they may not inquire into the application or interpretation of a collective agreement, nor into the alleged violation of the duty of fair representation against a certified union. The Ombudspersons may make any recommendations they deem appropriate with regard to resolving problems or improving policies, rules or procedures. However, they shall have no actual authority to impose remedies or sanctions, or to enforce or change any policy, rule or procedure.

Functions of the Ombuds Office

2. Specifically, the Ombudspersons shall:
a) inform University members about existing policies, rules and procedures, and advise them as to the appropriate channel of redress for any concern or complaint they may have;
b) assist University members to resolve complaints informally and quickly;
c) at their discretion, conduct an independent and objective inquiry into complaints when normal channels of recourse have been exhausted;
d) explain decisions taken by university decision-makers when complaints are not substantiated;
e) at their discretion, recommend solutions when complaints are found to be valid;
f) bring to the attention of those in authority any policies, rules or procedures which appear unclear or inequitable or which might jeopardize the rights or freedoms of any member of the University. The Ombudspersons may suggest changes to the existing policies, rules or procedures or offer advice on the development of new policies, rules or procedures.

Special Concerns of the Ombuds Office

3. In dealing with inquiries, the Ombudspersons shall be concerned that all members of the University are dealt with and deal with others fairly, and more specifically that:
a) decisions affecting members are made with reasonable promptness;
b) procedures used to reach decisions are adequate and the criteria and rules upon which such decisions are based are appropriate;
c) procedures and criteria used in making decisions are clearly communicated to those affected.

Procedures

4. The Ombudspersons shall have immediate access to such University records, reports or documents as are required to fulfil their functions. Requests for such access shall receive priority from all members.

5. If the Ombudspersons decide to inquire into a matter, they shall make every effort to consult the relevant parties and give such parties the opportunity to reply, should they so wish.

6. Upon the conclusion of an inquiry, the Ombudspersons shall advise all parties to a complaint of their findings and any recommendations that they have formulated.

7. In addition, they may bring their findings to the attention of those in authority and make whatever recommendations they deem appropriate and to whomever within the University they feel should receive them. Such recommendations may bear either on the actions or decision of an individual or a group, or on the policies, rules and procedures which gave rise to them. If, upon receipt of such findings or recommendations, a University authority proceeds to disciplinary action in order to resolve the matter, the procedures of any relevant University policy or collective agreement shall be followed.

8. The Ombudspersons may refuse to take up any case where they judge their intervention would be inappropriate and may withdraw from a case if continued involvement seems ill-advised.

9. If an Ombudsperson refuses to take up a case or withdraws from a case, he or she shall, on request, provide the applicant with a written statement of the reasons.

10. The Ombudspersons shall avoid involvement in cases where there may be conflict of interest.

Confidentiality

11. Should the pursuit of an inquiry necessitate the disclosure of details that identify an applicant, the applicant shall be informed. Any disclosure shall be limited to those who have a need to know.

12. Should an applicant decide to withdraw an application in order to protect his or her anonymity, the Ombudspersons shall respect this decision.

13. The Ombudspersons shall respect the confidentiality of any confidential information or materials to which they have access.

14. Should the Ombudspersons consider that the response to their recommendation has been unsatisfactory, they shall be entitled to make the recommendations public, provided always that, subject to Article 11, the confidentiality of the applicant is respected.

Files

15. The Ombudspersons shall maintain suitable records of complaints, findings and recommendations which shall be accessible only to the staff of the Ombuds Office. Such files shall be destroyed according to a retention schedule determined in accordance with provincial legislation.

Appointment of Ombudspersons

16. The Ombudspersons shall be appointed by the Rector upon the recommendation of an advisory committee struck for this purpose. The Ombudspersons shall report to the Rector.

17. The appointments shall be made for an initial term of two years, renewable for further terms of five years. During the fourth year of each such term, the Rector shall appoint an appraisal committee which shall review the operations of the Ombuds Office. This review shall include, but not be limited to, consultations with the internal community as well as external appraisal.

18. The Ombudspersons shall submit an annual report to the Rector by September 30 of each year. The report shall detail activities of the Ombuds Office, including statistics on all complaints received, and shall make recommendations, as necessary. The Rector shall ensure that the appropriate administrators consider and respond to the recommendations contained in the report.

19. The annual report shall be published in the University's newspaper.

Complaints Relating to Operations of the Ombuds Office

20. If a member considers that an Ombudsperson has committed a procedural or substantive violation of these terms of reference, with respect to any matter to which the member has been a party, he/she may submit a written complaint, detailing the alleged violation, to the Rector. The Rector shall investigate the complaint and inform the member of the results of the investigation.

student life and student services

18.1 ***STUDENT LIFE AND STUDENT SERVICES***
- **18.1.1** Student Services Mission
- **18.1.2** Concordia Council on Student Life (CCSL)

18.2 ***DEAN OF STUDENTS***
- **18.2.1** Social and Cultural Activities
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18.7 ***FINANCIAL AID AND AWARDS***
- **18.7.1** Gouvernement du Québec Student Loans and Bursaries
- **18.7.2** Federal and Provincial Loans and Bursaries
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- **18.7.4** Concordia University Scholarships and Bursaries
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- **18.7.6** International Students

section 18

18 STUDENT LIFE AND STUDENT SERVICES

Associate Vice-Rector, Services (Student Life)
DONALD L. BOISVERT

Dean of Students
T.B.A.

Director of Advocacy and Support Services
ANN KERBY

Director of Counselling and Development
SUP MEI GRAUB

Director of Financial Aid and Awards
ROGER CÔTÉ

Director of Health Services
NANCY TORBIT

Director of Recreation and Athletics
HARRY J. ZARINS

18.1 STUDENT LIFE AND STUDENT SERVICES

18.1.1 Student Services Mission

Student Services at Concordia provides students with programmes and services to enhance their academic achievement and promote their personal development as responsible, confident, well-rounded individuals. The staff is dedicated to creating a positive learning environment which values diversity and minimizes anxiety.
Student Services recognizes that all development, both intellectual and personal, is affected by a number of circumstances: financial, cultural, physical, psychological. A wide range of activities and services helps students to cope with challenges in these and other areas. Student Services also acts as an advocate for students. The overall aim of all programmes is to ensure that students can make the most of their university experience.

18.1.2 Concordia Council on Student Life (CCSL)

The Council, a body responsible for Student Services programmes, policies and budgets, studies the range of student life on both campuses. It is composed of nine students, one faculty member, and eight members of the Student Services staff. The Associate Vice-Rector, Services (Student Life) chairs the Council. Its meetings are open to all members of the University community.

18.2 DEAN OF STUDENTS

Loyola Campus
Administration Building, Room: AD 121
(514) 848-3535

Sir George Williams Campus
Hall Building, Room: H 653
(514) 848-3517

Student associations and groups, of whatever nature, are one of the primary means by which students can relate meaningfully to the institution. By providing liaison with and support to student groups and their governing bodies, the Dean of Students encourages students in the conduct of their own collective affairs, and facilitates the growth of student associations and the active involvement in them by students.

18.2.1 Social and Cultural Activities

Orientation
Orientation is designed to familiarize new students with the various services and facilities available to them, and to help new students resolve any problems that may be encountered during their introduction to university life.

Social and Cultural Activities
A wide variety of social and cultural events is presented regularly by various student organizations and departments. The Concordia orchestra and choir are open to students, and they perform several concerts annually. There is a students' cafeteria and pub on each campus, as well as lounge facilities and games rooms.

18.2.2 Residences and Off-Campus Housing

RESIDENCES—Loyola Campus Only
Hingston Hall is a modern dormitory style co-ed residence which houses 144 students. Rooms are furnished. Communal kitchens and public telephones are on each floor. Lounges have colour T.V.'s

while the games room has pool and ping pong tables. Laundry facilities, personal mailboxes, two computers, and a piano are located in the building for students' use. Many activities and outings are organized for resident students.
By law, students are required to sign leases. These leases will follow the academic year (September to May). Students wishing to contract for only one semester can apply for special arrangements.

Residence Fees
The 1995-96 room rates were as follows: (These rates do NOT include meal service.)

Single Room	$1,969.04 ($246.13 a month)	Double Room	$1,703.28 ($212.91 per person a month)

While effort will be made to meet special requests for specific rooms, assignments will depend upon availability of space. Since the number of rooms is very limited, applications should reach the director as soon as possible. Since **acceptance to the University does not guarantee admission to residence,** a separate application for on-campus housing must be sent to:

Director of Residences
Concordia University – Loyola Campus
Hingston Hall, Room: HA 156
7141 Sherbrooke Street West
Montréal, Québec, H4B 1R6

OFF-CAMPUS HOUSING
A computerized housing list is available at CSU, Hall Building, Room: H 260, (514) 848-7476.

18.3 ADVOCACY AND SUPPORT SERVICES

Supporting the self-development of students in exercising their own rights, working towards an environment which is open to constructive criticism, advocating against discrimination, and encouraging responsible change is the challenge Advocacy and Support Services presents to students through the services of the following units.

Loyola Campus
Administration Building, Room: AD 130
(514) 848-3509/Voice & TDD

18.3.1 Legal Information Services

Advice and help are offered to students requiring assistance on matters relating to their legal rights. An appointment to see a lawyer can be arranged.
Commissioners of Oaths are also available.

Loyola Campus
Administration Building, Room: AD 130
(514) 848-4960

18.3.2 Child Care

Child care services are offered for children of students, faculty, and staff.
On the Sir George Williams Campus, parents may enrol children 18 months to five years of age in the *Garderie Concordia.* Application forms and details may be obtained at the Information Desk in the Hall Building or at the daycare.
La Garderie Les P'tits Profs is located on the Loyola Campus. This "family centre" has a capacity for 48 full-time children: seven infants under 18 months, and 41 children from 18 months and over. For more information about this child care service please contact the centre directly.

Loyola Campus
La Garderie Les P'tits Profs
Annex BB
(514) 848-7788

Sir George Williams Campus
Garderie Concordia
Annex DC
(514) 848-8789

18.3.3 Campus Ministry

Campus Ministry offers programmes and pastoral services for the University community. Chaplains work with students, staff, and faculty, integrating and assimilating common concerns into worship, studies, and prayer. It is an ecumenical ministry representing the major religious denominations. Chaplains are available for spiritual direction and pastoral counselling. The Loyola Chapel is for public worship, as well as being a quiet place for private reflection.

Offices on both campuses are a place for students to gather informally and socially, as well as being the location for various Campus Ministry events and social outreach programmes.

Loyola Campus
Annex WF
(514) 848-3588

Sir George Williams Campus
Annex Z
(514) 848-3591

18.3.4 Services for Disabled Students

Students with visual or hearing impairments, mobility limitations, or learning disabilities may require special services while studying at Concordia. Services include orientation, tutors, notetakers, classroom relocation, special exam arrangements, and equipment resources. Tape recorders, FM personal systems, and personal computers with voice and Braille output are available for on-campus use. All students with disabilities are advised to contact the coordinator as early as possible for assistance in meeting their special needs.

Learning Disability

Students who have documents attesting to a learning disability or who believe they may have a learning disability are advised to contact the Services for Disabled Students immediately upon admission to the University. While not every learning disability can be effectively accommodated within a university setting, learning strategies and, where appropriate, special assistance to support students in their academic programme will be offered. Individualized examination arrangements can be provided to students with relevant assessments. These arrangements must be made with the Services for Disabled Students Office well in advance of the scheduled examination.

Loyola Campus
Administration Building, Room: AD 130
(514) 848-3536/Voice & TDD

Sir George Williams Campus
Hall Building, Room: H 580
(514) 848-3525/Voice & TDD

18.3.5 Women's Centre

The Concordia Women's Centre welcomes and links students, women from other areas of the University, and from the Montréal community at large. The Centre's priorities are to provide information, referrals, and support to women. It is also a drop-in space for women and women's groups and offers programmes, workshops, films, and discussion groups. The Centre practices feminist principles and strives to promote an awareness of and action on issues of concern to women. The Centre encourages all women to get involved.

Sir George Williams Campus
Annex P, Room: 03
(514) 848-7431

18.3.6 International Students

The International Students Office is responsible for providing special programmes and services to promote and support the growth and development of International students. For additional information, see §19.

Sir George Williams Campus
Hall Building, Room: H 653
(514) 848-3515

18.3.7 Centre for Native Education

The Centre for Native Education is primarily oriented towards supporting Native students at Concordia in their goal of achieving academic success. The Centre also seeks to increase awareness of Native issues and increase the knowledge of Native cultures among the Concordia Community.
Native students may access the Centre's academic programmes and services, including study rooms and computers, tutoring, photocopies, and advising and counselling services.

Sir George Williams Campus
Annex V, Room: 311
(514) 848-7326

18.4 COUNSELLING AND DEVELOPMENT

The Counselling and Development Department helps Concordia students with a wide range of personal, vocational, academic, and career concerns. Services are available on both campuses and are offered individually and in group workshops. The Department welcomes students of all cultural and ethnic backgrounds, of all sexual orientations, as well as those with physical disabilities. Services are available in both French and English.

Loyola Campus
2490 West Broadway, WC 101
(514) 848-3555

Monday to Friday: 9 AM to 5 PM*
**Summer hours vary.*

Sir George Williams Campus
Hall Building, Room: H 440
(514) 848-3545

Monday to Thursday: 9 AM to 8 PM*
Friday: 9 AM to 5 PM*

18.4.1 Counselling Service

Professional counsellors, accredited psychotherapists and psychologists offer Concordia students educational, career, and personal counselling; individually or in groups.

Personal Counselling and *Short-term Psychotherapy* help students who are experiencing difficulties to clarify personal issues and find effective ways of dealing with them. Confidentiality is ensured.

Personal Development Workshops are offered during the Fall and Winter semesters and can help with building relationships; communicating; planning one's life and career; understanding oneself and others; coping with incest, loss, alcoholism, stress; dealing with gay, lesbian, and bisexual issues.

Educational Counselling offers help to all Concordia students who want to plan their university education and choose courses suited to their interests and aptitudes.

Career Counselling can help students carry out job search and make career choices based on their interests, skills, and abilities.

Vocational Testing is available to help both graduate and undergraduate students to assess their academic and career interests as well as their personal preferences.

18.4.2 Learning and Writing Centre

The Learning and Writing Centre offers assistance to all Concordia students who want to improve their academic skills and learning potential.

Learning Specialists and peer learning assistants offer help to students on an individual basis to assess and develop their academic skills.

Peer Writing Assistants offer assistance to individual students of all abilities and at any stage of the writing process who want to improve their writing.

Peer Math Assistants offer help in small groups for students enrolled in basic Math courses.

Workshops are available to help students in such areas as study skills, writing term papers, oral presentations, time management, and overcoming exam anxiety.

18.4.3 Career Resource Centre

The Career Resource Centre provides a wide spectrum of educational, career, and employment information to help students plan their career.

The Education Collection, worldwide in scope, includes profiles and rankings of universities, university calendars, programme directories, and sources of financial aid.

The Career Information includes career encyclopedias, and books and pamphlets on such topics as individual occupations, labour-market trends, and salaries.

The Job Search Resources include information for researching occupations and potential employers, books on such topics as designing résumés, writing cover letters, preparing for job interviews, and job hunting techniques.

Test Applications and Study Books are available to help students prepare for and take tests such as LSAT, GMAT, and TOEFL.

The Personal Development Resources include a variety of self-help books on such topics as study skills, time management, assertiveness training, coping with stress, and dealing with personal relationships.

18.4.4 Career and Placement Service (CAPS)

CAPS is available to help students prepare for and gain entry into the labour market. It is an important link between university life and the "real" world.

Employment Assistance can help students identify their job skills and learn how to present themselves in response to labour-market demands. Individual appointments, as well as information and group workshops, are offered in the areas of job search, résumé writing, and interview preparation.

Employment Opportunities and career-related information are available from CAPS, through its contacts with business, industry, and the general labour market. Students seeking summer, part-time, or full-time positions can access individual job openings year-round. In addition, students are recruited on-campus, in the Fall, for entry-level permanent positions upon graduation. Bulletin boards advertising all positions are located at CAPS and on the 4th floor of the Hall Building.

Sir George Williams Campus
2070 Mackay, EN 106
(514) 848-7345

Monday to Friday: 9 AM to 5 PM — *Summer hours vary*

18.5 HEALTH SERVICES

Health Services offers students personalized, confidential health care. The Health Services staff, which includes nurses, family physicians, psychiatrists, mental-health professionals, a dermatologist, and a health educator, have the knowledge and expertise to provide high-quality health care to meet the unique needs of students. Students are encouraged to be active and responsible partners in their health-care needs.

As well as providing on-site health care, when necessary, Health Services, works collaboratively with other health professionals and community resources to coordinate the student's care.

Physical and emotional health problems often interfere with a student's academic performance, and in this context, Health Services can act as a liaison between the student, University departments, and faculty members. Health Services should be contacted at the time of illness if a medical letter is required. Each request is assessed on an individual basis.

In collaboration with other Student Services and University departments, peer health educators, student volunteers, and community health resources, the health educator coordinates a varied health education programme. Issues such as AIDS and safer sex, sexual assault, nutrition and body image, stress management, alcohol, and other topics are presented in both formal and informal settings. A library of health-related materials exists on each campus. Nurses and physicians provide extensive one-on-one teaching as a routine part of health care.

Health Services is available to all students, staff, and faculty, both full- and part-time.

Loyola Campus
Centennial Building, Room: CH 101
(514) 848-3575

Sir George Williams Campus
Annex ER, Room: 407
(514) 848-3565

Office Hours:
Monday to Friday: 9 AM to 5 PM*
*Loyola Campus is closed Monday to Friday from 12:30 PM to 1:30 PM.

18.6 RECREATION AND ATHLETICS

Physical activity is an important component of student life and it provides many opportunities for individual growth and development. Recreation and Athletics offers a complete and diversified programme in order to provide an opportunity for all students to participate in a physical activity of their choice. The principles of fair play and equality of opportunity guide all programme activities. Fitness, recreational, and skill-development programmes for men and women operate on both campuses under the supervision of professionally trained instructors. These activities provide a forum for physical fitness, structured participation, and low-intensity competition. The interuniversity sport programme is primarily for students with playing experience and those who wish to pursue a high level of competition. Graduate as well as undergraduate students pursuing studies on a full-time basis, and meeting the requirements of the Canadian Interuniversity Athletic Union, are eligible to represent Concordia in interuniversity competition. Concordia University holds memberships in the CIAU, O-QIFC, QSSF, and the OUAA. Although Concordia has fielded national championship teams, the focus of the interuniversity programme continues to be the development of academic and athletic excellence. Towards this end, Recreation and Athletics offers a comprehensive academic athlete support programme to all student-athletes involved in interuniversity teams.

The south campus is the focal point of all fitness, recreation, and sport activities on the Loyola Campus. This facility includes full-length playing fields and a fitness and recreation centre complete with an ice arena, gymnasium, and weight-training room. The Sir George Williams intramural and instructional programmes are centred in the Victoria School gymnasium.

Loyola Campus
Athletics Complex, Room: PA 104
(514) 848-3850

Sir George Williams Campus
Victoria School, Room: GY 060
(514) 848-3860

Concordia Stinger Hot Line: (514) 848-3888

18.7 FINANCIAL AID AND AWARDS

General Information

The Financial Aid and Awards Office assists students and prospective students in seeking and securing financial assistance to enable them to pursue their scholastic objectives.

Student financial assistance is available in various forms, such as government financial aid, usually

as student loans and bursaries; University scholarships and bursary programmes; on-campus work opportunities through the University Work Study Programme; and corporate scholarship programmes.

18.7.1 Gouvernement du Québec Student Loans and Bursaries

Detailed information can be found in a government-published booklet titled *Financial Assistance with the Student in Mind*. This booklet is available at the Financial Aid and Awards Office. Each student is responsible for communicating with the government, and making all the necessary arrangements to process his/her application form. All announcements concerning deadlines, conditions, and awards will be posted, upon receipt, on information boards located in the Financial Aid and Awards Office. All eligible students are expected to apply for, and accept, the maximum loan and bursary. Students should note that financial assistance is limited, and they are strongly advised to weigh their financial position at the start of each academic year. An inability to meet the expenses involved can reflect directly upon academic performance and place the student's career in jeopardy. The basic principle of awarding financial aid is that the primary obligation in paying for an education rests with the students and their parents. This means that a student is expected to have savings from summer employment and that parents must contribute according to their ability. The Financial Aid and Awards Office exists solely to assist students and to help them find financial aid should it be required.

Eligibility

Students are eligible to be considered for government assistance if they meet the following conditions: 1) Canadian Citizen or Permanent Resident; 2) domiciled and residing in Québec for one year [the last 12 consecutive months before pursuing full-time studies (excluding residents of other provinces who move to Québec to pursue their full-time studies)]; 3) must be enrolled full-time. Full-time credit load for undergraduate students is defined as at least 12 credits per term. For Graduate students, status is defined by the Admissions Office of the School of Graduate Studies.

In addition, the student must not have received assistance for a period exceeding:

a) 10 terms of university studies towards a single bachelor's degree;
b) 12 terms of university studies towards a single bachelor's degree which required more than 90 credits;
c) 14 terms of university studies towards a single bachelor's degree in a co-op programme;
d) Eight terms of university studies towards a master's level degree;
e) 12 terms of university studies towards a doctorate degree.

The periods described above (a,b,c, and d) are not cumulative, but are independent of each other. A student may not receive assistance for more than 22 semesters of full-time study.

Deadlines

In order to expedite the processing of applications for financial aid, thereby accelerating the delivery of loan certificates and bursary cheques to educational institutions, the Direction générale de l'aide financière aux étudiants has set deadlines for submission of application forms as follows:

June 30: for all students submitting a loan and bursary application

OR: within 45 days of the date of the student's letter of acceptance from the educational institution he/she will attend, PROVIDING this letter was sent out after May 15. A copy of the letter of acceptance must be included with the application form.

The postmark shall serve as proof of the date on which the student's application for financial aid was mailed.

PHYSICALLY DISABLED STUDENTS

Students in any faculty, who are Canadian Citizens or Permanent Residents and who have been domiciled in Québec for one year prior to their full-time studies, may apply for a bursary if they suffer from a major functional physical disability. Applications are made to the Financial Aid and Awards Office. Further information is available at Services for Disabled Students.

SECOND LANGUAGE STUDIES BURSARIES

This programme is intended for college and university (undergraduate) students, both French-speaking and English-speaking, who wish to learn their second language by immersion in an environment where that language is dominant. This programme is funded by the Department of the Secretary of State in accordance with the federal/provincial agreements on the official languages in education and is administered by the Direction générale de l'aide financière aux étudiants of the Ministère de l'enseignement supérieur et de la science.

Eligibility Criteria:

1. Applicants must be Canadian Citizens or Permanent Residents, and meet one of the following conditions concerning "residence" in the province of Québec:
   a) The applicant's permanent residence or parents' residence must be further than 140 kilometres from the institution the applicant is attending;
   b) Be unmarried and considered to be dependents of their parents if the latter resided in

Québec at the time the applicant applied for a bursary. However, unmarried applicants whose parents take up residence in another Canadian province do not lose their Québec resident status, provided that they continue to reside in Québec for the purpose of undertaking or continuing their studies;

c) Be married students or independent unmarried students or unmarried students whose place of residence cannot be established on the basis of that of their parents (for example, if their parents are deceased, missing, or reside outside Canada), provided that:
   i) the students already have resident status when they become independent
      OR
   ii) the province of Québec was the students' last place of residence for a period of 12 consecutive months, excluding time devoted to full-time studies at an educational institution. However, married students who cannot establish Québec resident status are considered to hold such status provided that they and their spouse have their principal residence in Québec and are enrolled in full-time studies at an educational institution, AND that their spouse have Québec resident status, and an agreement exists between Québec and the province where they and their spouse have resident status.

2. Applicants must have applied for admission as full-time students to Canadian educational institutions located in areas favourable to the development of their second language.
3. In the upcoming school year, applicants must be enrolled as full-time students for two consecutive terms in programmes of study at the college or university level (undergraduate) in which at least 75% of the courses are taught in their second language.
4. The applicants' mother tongue must be either French or English, and is determined by the language spoken at home. In the case of individuals who speak neither French nor English at home, two years of previous studies in one of the official languages shall establish the applicants' mother tongue.
5. Applicants must not be participants in the second-language monitor programme for the year in question.
6. Applicants must not have completed two or more years of full-time studies in their second language since the start of their schooling.

Graduate students enrolled in a Québec university, and participating in an official student exchange programme with another Canadian university, may receive this bursary provided they fulfil the other eligibility requirements.
Application forms are available at the Financial Aid and Awards Office.
Deadline for submitting applications: June 30.

SUMMER LANGUAGE IMMERSION COURSE BURSARIES

Bursaries will be granted to students across Canada to enable them to enrol in a six-week immersion course in French or English at accredited institutions.
The aim of this programme is to provide post-secondary students with the opportunity to learn one of Canada's official languages as their second official language and to improve their knowledge of the culture represented by that language. Candidates whose mother tongue is neither French nor English may not receive bursaries to study English or French as their first official language. These bursaries will defray the cost of tuition, instructional materials, and room and board, but will not cover transportation costs or pocket money.
Inquiries regarding the awarding of bursaries (e.g., eligibility, etc.) should be made to the students' provincial coordinator or territorial official, the names and addresses of which are available at the Financial Aid and Awards Office.

Eligibility:
Students are eligible if they meet the following conditions:

a) are Canadian Citizens or Permanent Residents at the time of application. Students studying in Canada on visas are not eligible;
b) have general post-secondary standing or can prove that they will have obtained such a status by the time they become involved in the programme;
c) were enrolled as full-time students during the previous academic year.

OFFICIAL LANGUAGE MONITOR PROGRAMME

Monitors are students who help students with the spoken language by conveying to them the real-life aspect of the language. They carry out their duties under the supervision of second-language teachers. Full-time monitors work for 10 months (September to June) for an average of 25 hours per week and may earn up to $11,000. Part-time monitors are employed for eight months for an average of eight hours per week (September to April). The programme also provides reimbursement for certain expenses. For further information contact the Financial Aid and Awards Office.

18.7.2
Federal and Provincial Loans and Bursaries

In all cases, the basic qualification is that applicants must be Canadian Citizens or Permanent Residents with one year's residency, without pursuing full-time studies, and domiciled in the province to which they apply.
When students apply for financial assistance from the government (Canadian or non-Canadian), and certification of student status is required on the application form, this certification is obtained from the Financial Aid and Awards Office.
In all provinces except Québec, the provincial authority listed below administers the Canada Student Loan Plan (Federal) as well as their own programmes.

List of Appropriate Provincial Authorities

ALBERTA
Student Finance Board
6th Floor, Sterling Place
9940 - 106th Street
Edmonton, Alberta
T5J 1G7
(403) 427-2740

BRITISH COLUMBIA
Student Services Branch
Ministry of Advanced Education, Training and Technology
2nd Floor, 1106 Cook Street
Victoria, British Columbia
V8V 3Z9
1-800-742-1818 (toll free)

MANITOBA
Student Aid Branch
Box 6, 693 Taylor Avenue
Winnipeg, Manitoba
R3M 3T9
(204) 945-6322

NEW BRUNSWICK
Department of Youth and Recreation
P.O. Box 6000
Fredericton, New Brunswick
E3B 5H1
1-800-667-8626 (toll free)
(506) 453-2577

NEWFOUNDLAND and LABRADOR
Student Aid Division
Department of Education
P.O. Box 8700
St. John's, Newfoundland
A1B 4J6
(709) 729-4235

NORTHWEST TERRITORIES
Department of Education,
Student Services Section
Yellowknife, Northwest Territories
X1A 2L9
(403) 873-7194

NOVA SCOTIA
Student Aid Office
P.O. Box 2290, Station M
Halifax, Nova Scotia
B3J 3C8
(902) 424-8420 (or 7737)

ONTARIO
Student Support Branch
Ministry of Colleges and Universities
P.O. Box 4500
189 Red River Road, 4th Floor
Thunder Bay, Ontario
P7B 6G9
(807) 343-7260
1-800-465-3013 (toll free in Ontario)
1-800-465-3958 (telephone device for the hearing impaired)

PRINCE EDWARD ISLAND
Canada Student Loans Committee
Department of Education
P.O. Box 2000
Charlottetown, Prince Edward Island
C1A 7N8
(902) 892-3504

QUÉBEC
Ministère de l'éducation
Direction générale de l'aide financière aux étudiants
1035, rue de la Chevrotière
Québec, Québec
G1R 5A5
(418) 643-3750
(514) 864-4505 (for information or inquiry into the status of your file)
(Interactive telephone 24 hours/day, 7 days/week)

SASKATCHEWAN
Saskatchewan Advanced Education and Manpower
Student Financial Services
1855 Victoria Avenue
Regina, Saskatchewan
S4P 3V5
(306) 787-5620

YUKON
The Student Financial Assistance Awards Committee
Superintendent of Education
P.O. Box 2703
Whitehorse, Yukon Territory
Y1A 2C6
(403) 667-5141

CANADA STUDENT LOAN
Department of the Secretary of State of Canada
Student Assistance Directorate
P.O. Box 2090, Station D
Ottawa, Ontario
K1P 6C6
(819) 994-1844

18.7.3
Concordia University Financial Aid

Work Study Programme
Work Study is a Financial Aid programme funded by Concordia University. The programme is designed to assist full-time students with education and living costs, when their own resources are determined to be insufficient, by working part-time at Concordia University during the school year. The intent of the programme is to give students an opportunity for career or life-related experience while, at the same time, meeting a portion of their financial need.
Students may work either or all of Summer, Fall, and Winter semesters for a maximum of 15 hours per calendar week. The hourly wage is set between $6 and $9.

Eligibility: A student is eligible for Work Study if he/she meets the following criteria:
a) must be a Canadian Citizen, a Permanent Resident, or an International student;
b) must be registered as a full-time student for the academic period in which the work is performed;
c) must demonstrate financial need as evidenced by a needs test done by the Financial Aid and Awards Office.

Further information can be obtained at the Financial Aid and Awards Office, and by reading the *Work Study Information and Application* pamphlet available at the Financial Aid and Awards Office.

Tuition Deferrals
Students who have received a confirmation of financial assistance from a government funding source and who are unable to pay their tuition fees by the required deadlines may apply to defer payment until such time as they receive their funds. Requests for tuition deferrals must be made through the Financial Aid and Awards Office. Tuition deferrals will not cover any outstanding tuition fees from previous years nor the interest on the outstanding balance. For further information, please contact the Financial Aid and Awards Office.

Short-term Advances
Limited funds are available at the Financial Aid and Awards Office for students experiencing financial difficulties. Such advances are issued to undergraduate and graduate, full-time and part-time students at Concordia University. Students must see a Financial Aid and Awards officer for further information on eligibility requirements and conditions.
The service is made possible by contributions of the Concordia University Alumni Association Inc. to the University Emergency Loan Endowment Fund from which interest earnings support part of the Short-term Advance Programme.

18.7.4
Concordia University Scholarships and Bursaries

Concordia University Awards
Two types of awards are available to undergraduate students through the Financial Aid and Awards Offices; these are scholarships and bursaries.
Entrance Scholarships are available to students entering university programmes, and In-course Scholarships are available to students who have completed the previous year of full-time study at Concordia University. In all cases, scholarships are awarded on the basis of scholastic achievement and, for some awards, consideration is given to the involvement in university life.
Bursaries are available to students who have completed at least one semester of full-time study at Concordia University. These bursaries are known as In-course Bursaries, and are awarded on the basis of scholastic achievement and financial need.
Unless otherwise stated, all awards are granted to full-time students who are Canadian Citizens or Permanent Residents. Unless expressly authorized by the University Undergraduate Scholarships and Awards Committee, award recipients may hold only one of the following types of awards in a given academic year: Concordia Entrance Scholarships, Concordia In-course Scholarships, or Concordia In-course Bursaries.
For additional information and application forms, contact the Financial Aid and Awards Office or consult its *Financial Aid and Awards Office (FAAO) Handbook.*

CONCORDIA ENTRANCE SCHOLARSHIPS
A number of scholarships are available to students entering their first year of full-time study. These are awarded by the University Scholarship and Awards Committee on the basis of academic achievement during the first three semesters of CEGEP or equivalent. For a complete list, see §300.1 or consult the *FAAO Handbook.*

CONCORDIA IN-COURSE SCHOLARSHIPS
In-course Scholarships are awarded to full-time students (unless otherwise indicated) who have completed at least 24 credits at Concordia. Recipients are selected in the summer on the basis of the previous year's academic achievement. The scholarships are paid in the following Fall and Winter terms. Recipients must maintain their full-time status throughout the year the award is

tenable. Unless otherwise indicated, no application is required. Academic performance is reviewed with the Office of the Registrar. For a complete list, see §300.2 or consult the *FAAO Handbook.*

CONCORDIA IN-COURSE BURSARIES
These awards are made on the basis of financial need and high academic standing. The value of each award may fluctuate yearly depending upon current interest rates.
Unless stated differently, awards are given to full-time students who are Canadian Citizens or Permanent Residents. For a complete list, see §300.2 or consult the *FAAO Handbook.*

Concordia Senior Student Bursary Programme
Concordia University has, for many years, endeavoured to facilitate access to university studies for senior citizens. The University is happy to offer, to eligible students who make the request, bursaries to help defray the cost of their studies. These bursaries are non-renewable, but recipients may apply in successive years.

Eligibility: Applicants must be 65 years of age or over, and registered as full- or part-time students at Concordia University. Applicants must be considered as either senior Independent, senior undergraduate, or senior graduate students.

Value of Bursaries: The value of these bursaries is $25 per credit for each level of study.

Approval Process: Recipients will be selected on the basis of progress in their studies, and a personal statement indicating mention of their financial need and how this bursary would be of assistance to them.

For additional information, consult the *FAAO Handbook* available from the Financial Aid and Awards Office.

18.7.5
Awards Offered by External Organizations

These awards are sponsored and administered by external associations, companies, foundations, societies, and clubs. Applications go directly to the organization administering the award, unless otherwise noted. For a complete list, see §300.3.

18.7.6
International Students

American Students:
Students coming to a Canadian university from the United States may apply for a Higher Education Loan Plan through their home town bank. These forms must be sent to Concordia University for completion. Due to the limited amount of funds available, it is essential that application be made as early as possible.

Students from Other Countries:
The scholarships, bursaries, and loans offered through Concordia University and external agencies are generally not available to overseas students. Students studying on a student visa who require financial aid should, therefore, contact their home country's Department of Education.
The Canadian International Development Agency offers training assistance to most developing countries with which Canada has a cooperative agreement; however, students must be nominated by their own government. For further information, contact the Scholarship Committee, Human Resources Directorate, Canadian International Development Agency, 200 Promenade du Portage, Hull, Québec, K1A 0G4.
Students should try to obtain adequate finances before coming to Canada. If students do not plan to return home during the summer, four additional months of living expenses should also be provided for.

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international students

19.1 ***ADMISSION REQUIREMENTS***
- **19.1.1** Admission Requirements
- **19.1.2** International Baccalaureate
- **19.1.3** Language Proficiency
- **19.1.4** Criteria for Admission
- **19.1.5** Application Fee
- **19.1.6** Registration

19.2 ***IMMIGRATION PROCEDURES***

19.3 ***TUITION AND OTHER FEES FOR INTERNATIONAL STUDENTS***

19.4 ***SCHOLARSHIPS, BURSARIES AND LOANS***

19.5 ***STUDENT HEALTH AND ACCIDENT INSURANCE***

19.6 ***WORKING ON-CAMPUS***

19.7 ***ESTIMATED COST OF LIVING FOR INTERNATIONAL STUDENTS***

section 19

19 INTERNATIONAL STUDENTS

There are approximately 1,000 students from outside Canada studying at Concordia University. In this section, International students will find relevant information on admission requirements, immigration regulations and tuition fees. Further information and assistance can be obtained from the International Students Office, Room: H 653, (514) 848-3515.

The International Students Office, a member of the Advocacy and Support Services Group of Student Services, is responsible for providing programmes and services which are responsive to, and supportive of the International students' special needs. The services include:

- orientation sessions;
- assistance for students with personal and academic difficulties;
- coordination of all campus and community services available to International students;
- assistance on immigration matters;
- emergency loans;
- letters for military deferment, transfer of funds, and immigration invitation/visitation letters;
- liaison with sponsoring agencies and governmental sponsors of students.

Upon arrival at Concordia University, International students are encouraged to pick up an *Information Package* on Concordia and the City of Montréal at the International Students Office.

19.1 ADMISSION REQUIREMENTS

19.1.1 Admission Requirements

Concordia welcomes applications for admission from well-qualified students from other countries. In general, students are expected to have completed the level of education required for admission to a university in their home country. The school-leaving subjects taken by the candidate should normally be appropriate for the degree programme to which application has been made. Some programmes have additional requirements, e.g. audition, interview, portfolio. Since entry to many programmes is limited, the satisfaction of minimum requirements does not guarantee entry to the University. More specific information with respect to admission requirements and placement levels may be obtained by writing to the Office of the Registrar.

Depending on their educational background, applicants are considered for entry to three-year (90 credits) or four-year (120 credits) degree programmes. The number of credits required for the BEng degree varies according to the option chosen and the previous preparation of the student, but is usually no less than 115.

United Kingdom and Commonwealth

Passes awarded in the examinations for the General Certificate of Education, the Cambridge Overseas and Higher School Certificates, the West African School Certificates, General Certificate of Secondary Education, or the equivalent, will be considered as satisfying the general entrance requirements if the conditions of either Scheme A or Scheme B are satisfied.

Scheme A: Passes in five subjects of which at least two must be passed at the Advanced Level (GCE) or Principal Level (COHSC), and three at the Ordinary Level (GCSE) or the School Certificate Level.

Scheme B: Passes in four subjects of which at least three must be passed at the Advanced Level (GCE) or Principal Level (COHSC), and one at the Ordinary Level (GCSE) or the School Certificate Level.

Some additional information attached to the fulfilment of the above schemes:

a) an average grade of "D" or better in Advanced or Principal Level subjects is normally expected. In the case of certain quota programmes where enrolment is limited, candidates will have to present higher grades in order to compete successfully for places at the University;
b) two appropriate AS (Advanced Supplementary) Levels may be accepted in lieu of an Advanced Level for the purposes of satisfying the general entrance requirements of the University.

Some programmes have specific subject requirements. These have been outlined below. The following indicates, by degree, which Advanced or Principal Level subjects are required.

BAdmin, BComm, BSc — Mathematics and one other acceptable subject

BA, BEd, BFA — Any two acceptable subjects

BEng — Mathematics and Physics

BCompSc

General Science — Mathematics and Physics
Information Systems — Mathematics and any other acceptable subject
Software Systems — Mathematics and Physics
Systems Architecture — Mathematics and Physics
Theoretical Computer Science — Mathematics and Physics

Students who have not written Advanced or Principal Level examinations but who have good grades in at least five appropriate Ordinary Level, GCSE, or School Certificate Level subjects plus one year of formal schooling beyond Ordinary Level, in a suitable academic programme in a recognized school or college, may be considered for admission to an undergraduate programme requiring the completion of 120 credits (four years). In the case of the BEng, the programme would require four to five years.
Applicants to an extended undergraduate programme in Engineering or Science are normally expected to have completed mathematics and at least one science subject; those applying to Commerce and Administration are advised to have completed mathematics as part of their entrance qualifications.
Content of additional credits for the 120 credit programme will be found in the appropriate Faculty section of this Calendar.

United States
High School graduates with good grades from accredited schools who have followed an academic programme designed for university entrance may apply for admission to an extended undergraduate programme of approximately 120 credits.
Applicants are required to have a better than average school record and high ranking in their graduating class. While no set pattern of courses in High School is required, all applicants are expected to have taken four units of English. Those applying for admission to Science or Engineering must include three or four units in mathematics and two in the sciences. At least three units of mathematics are recommended for admission to Commerce and Administration.
Although not required for admission, letters of recommendation from school guidance counsellors and the results of aptitude and achievement tests (SAT, ACT) are helpful additions to an application.
Students who have successfully passed Advanced Placement examinations in appropriate subjects with a grade of "3" or better may be granted some advanced standing.

France
Students who have completed the requirements for the Baccalauréat with satisfactory results may be considered for admission to an undergraduate programme requiring the completion of 90 credits (three years).
The number of credits required for the BEng varies according to the option chosen and to the previous preparation of the student, but is usually no fewer than 115.
In cases where the Baccalauréat specialization (serie) followed does not fully satisfy the entrance course requirements for the degree programme sought, the student, if admitted, will have to include the designated prerequisites as part of the first-year programme. In some instances, the prerequisites must be taken in addition to the undergraduate programme.

Other Countries
Candidates applying from other countries who have completed the level of education required for admission to a university in their home country will be considered for admission provided that better than average grades have been attained. In most cases, a specific minimum overall standard is required. More specific information with respect to admission requirements and placement levels may be obtained by writing to the Office of the Registrar.

Transfers from Post-Secondary Institutions
Transfers from post-secondary institutions are referred to §13.3.4.

19.1.2 International Baccalaureate

IB Diploma candidates who achieve passes in six subjects with three at the Higher Level and who obtain a minimum total of 27 points may be considered for admission to the regular undergraduate programmes of study.

19.1.3 Language Proficiency

The language of instruction at Concordia University is English. For information regarding the language proficiency requirement refer to §13.4.

19.1.4 Criteria for Admission

Admission to Concordia University is selective and will be considered when all relevant academic certificates and the Summary of Educational Experience form have been received. All certificates must show the actual grade obtained in each examination.

19.1.5 Application Fee

International applicants must pay a $30 (Canadian) application fee payable by international money order or draft drawn on a Canadian bank in Canadian funds to Concordia University.

19.1.6 Registration

Students select courses for the September and January terms prior to the start of classes. Most students within North America will register for their courses by touchtone telephone using CARL, the Concordia Automated Response Line. Alternate registration arrangements will be available for students residing outside North America.
Complete information regarding registration is sent with the letter of acceptance.

19.2 IMMIGRATION PROCEDURES

All persons, other than Canadian Citizens and Landed Immigrants, who wish to pursue their studies in the province of Québec, must obtain a *Québec Certificate of Acceptance* (CAQ) and a Canada *Student Authorization*. As it may take several weeks to obtain the *Student Authorization*, the application process should be started **immediately** upon receipt of the letter of admission from Concordia University.
When applying for the *Québec Certificate of Acceptance* and the *Student Authorization*, International students are required to present evidence of sufficient funds for tuition and living expenses. Evidence of financial support may be:

- an updated bank book with proof of ownership, and if necessary, documents attesting to other sources of income;
- a sworn declaration of financial support, accompanied by proof of sufficient funds from the Canadian or foreign sponsor for the current year, if applicable;
- an authorization to transfer funds from the organization which controls currency in the student's country, if applicable;
- a bursary attestation or confirmation of a financial award, specifying the monthly or annual amount, if applicable.

Students are advised to ensure that they will have sufficient funding to complete their degree. **Concordia University cannot assume financial responsibility for students who do not have adequate funds.**
Processing fees will be charged by both Québec Immigration and Canada Immigration for the issuance of a *Québec Certificate of Acceptance* and a *Student Authorization*.

19.3 TUITION AND OTHER FEES FOR INTERNATIONAL STUDENTS

International students with *Student Authorizations* have to maintain a full-time status, i.e. 24 credits or more per year. The fees, payable to the University for the regular session of two terms commencing in September and concluding in April, are approximately $7733.40 for a full-time student. This amount covers tuition fees for 30 credits including academic materials, student service and association fees, and is based on an amount of $257.78* per credit. This estimate does not include the cost of textbooks or living expenses. There is also a compulsory health insurance fee of approximately $415.
Please refer to §15.2 for information concerning the payment of tuition and fees.

Exemptions from Differential Fees
Certain International students may be eligible to pay the same fees as Canadian students. Students, who qualify for an exemption from the differential fees for International students, pay the regular home fee of $1945 (including tuition and compulsory fees for 30 credits). The following are among those exempted from paying differential fees:

1. diplomats, consular personnel, accredited representatives or civil servants of a foreign country, the United Nations or one of its organizations, an intergovernmental organization to which Canada belongs, and any member of the staff of the above-listed persons who are working in Canada in an official capacity;
2. the spouse and unmarried children of the above-listed persons;
3. an International student whose spouse or parents hold certain work categories of work permits in Québec. For further details and verification, please contact the Office of the Registrar, Room LB 700, (514) 848-2637;
4. a student who is registered at a university and who has come to Québec as an exchange student, or as a student participating in a programme of cooperation agreed to by the Government of Québec and which exempts the participants from paying differential fees;
5. a student who is a French Citizen (accord France-Québec);
6. a student who is admitted to a Québec university and whose country has a fee remission agreement with the Québec Government. The Government of Québec has agreements for

granting a **limited** number of exemptions from the differential fees for International students from the following countries:

Algeria, Argentina, Benin, Bolivia, Brazil, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Chile, China, Colombia, Comoros, Congo, Costa-Rica, Côte d'Ivoire, Djibouti, Ecuador, Gabon, Groenland, Guinea, Haiti, Honduras, Iran, Kenya, Korea, Lebanon, Madagascar, Mali, Mauritania, Mauritius, Mexico, Morocco, Niger, Panama, Peru, Rwanda, Senegal, Togo, Tunisia, Uruguay, Venezuela, Vietnam, Zaire.

Inquiries and applications for an exemption should be made directly to the student's own Ministry of Education prior to leaving their home country. In some cases, when the person is in Canada, it may be possible to apply for an exemption at their Embassy or Consulate in Canada or in the United States;

7. a student who is registered at a university and whose status as a Convention Refugee or Landed Immigrant has been officially recognized by Canada Immigration. Should a student receive Convention Refugee, or Landed Immigrant status during the academic year, he or she should immediately present the official document to the Office of the Registrar, Room LB 700, to have their status changed and to inquire about a possible refund. For more information on refund policies and deadlines for submission of documents, please contact the Office of the Registrar;
8. a student who is registered at a university in a programme of studies which is specifically exempted by the Ministry of Education. At Concordia University, this refers to:
   - Honours, Major or Specialization in French Literature;
   - Honours, Major or Specialization in Québec Literature;
   - Major in French Studies - Language option, Literature option or Teaching French option;
   - Certificate in Teaching French as a Second Language to Adults;
9. a graduate student who has been granted a fee remission from Concordia University. Inquiries and applications should be made to the Graduate Awards Office, (514) 848-3809.

19.4 SCHOLARSHIPS, BURSARIES AND LOANS

Scholarships, bursaries, and loans offered through Concordia University and external agencies are generally not available to International students. Students should try to obtain adequate finances before coming to Canada and ensure that they will have sufficient funding to complete their degrees.

Concordia In-Course Bursaries
These awards are made on the basis of financial need and high academic standing. Among the available in-course bursaries, those financed by Concordia University are available to International students. Applications are available at the Financial Aid and Awards Office in October and should be returned in December. For more information, contact the Financial Aid and Awards Office and consult §18.7.4; for a complete listing, consult §300.2.

Concordia Shuffle Entrance Scholarships
A number of entrance scholarships are awarded to students entering their first year of study. The recipients will be selected on the basis of academic achievement during the first three semesters of CEGEP or equivalent. Application forms are available from the Financial Aid and Awards Office. Deadline: August 1.

CIDA Award Programmes
The Canadian International Development Agency (CIDA) offers training assistance to most developing countries with which Canada has a cooperative agreement. Students are nominated by their own government. For further information, contact the Scholarship Committee, Human Resources Directorate, CIDA, 200 Promenade du Portage, Hull, Québec, K1A 0G4.

Canadian Commonwealth Scholarship and Fellowship Plan
A number of scholarships are awarded to citizens of a Commonwealth country other than Canada. First-degree programmes are permissible where these are not available in the home country. Application forms can be obtained from the International Council for Canadian Studies, 325 Dalhousie, S-800, Ottawa, Ontario, K1N 7G2.

Exemption from Higher Tuition Fees
The Government of Québec has agreement for granting a **limited** number of exemptions from differential fees for International students from specific countries. Consult §19.3.6 for the list of countries and information.

Other Awards
Information on awards to International students and trainees is also available in the brochure *Awards for Study in Canada* published by the Canadian Bureau for International Education. For further information, write to CBIE, 220 Laurier Avenue, Suite 1100, Ottawa, Ontario, Canada, K1P 5Z9.

American Students
Students coming to Concordia University from the United States may apply for a Higher Education Loan Plan through their hometown bank. These forms must be sent to Concordia for completion. Due to the limited amount of funds available, it is essential that application be made as early as possible.

Emergency Loans
Funds are available at the International Students Office for short-term emergency loans. Loans are issued to full-time undergraduate and graduate students who need temporary emergency financial assistance. For further information on eligibility requirements and conditions, contact the coordinator, International Students Office, Room: H 653, (514) 848-3514.

19.5 STUDENT HEALTH AND ACCIDENT INSURANCE

Since International students are normally ineligible for government health insurance benefits, Québec Immigration Services require that all International students participate in a compulsory health insurance plan. To this end, the University has negotiated a plan on behalf of all International students.
The single coverage premium for the 1996-97 academic year is $415 (subject to change). Coverage is from August 15, 1996, until August 14, 1997. Students who register in January 1997 will pay a pro-rated premium for the eight-month period ending August 14, 1997.
Students who have diplomatic status, a comparable health plan, a Medicare card, or other valid reasons, can apply for a waiver from the International Students Office prior to October 31, 1996.

19.6 WORKING ON-CAMPUS

Immigration regulations allow International students to accept employment on the campus of the educational institution for which they hold a valid *Student Authorization*. Students are not required to apply for an *Employment Authorization* as long as the employment is *on-campus*.
After graduation, International students may work in Canada for one year provided the employment is related to their field of studies. In this case, students must apply for an *Employment Authorization* within 60 days of the notification of final marks.
Spouses of International students are allowed to work on- and off-campus and are required to apply for an *Employment Authorization*. However, spouses who are full-time students are restricted to on-campus employment only.
NOTE: Students who are working for more than three months are eligible for the Québec Medicare card. The card is issued by the "Régie de l'assurance-maladie du Québec" and is valid for the duration of the employment.

19.7 ESTIMATED COST OF LIVING FOR INTERNATIONAL STUDENTS

University Fees		
	Tuition	$ 7,452.90
	Compulsory Fees:	
	Student Service Fee	204.00
	Student Association Fee*	76.50
	Medical Insurance	415.00
Personal Expenses**		
	Books and Supplies	600.00
	Lodging	3,600.00
	Groceries	3,000.00
	Transportation	540.00
	Clothing	650.00
	Miscellaneous	800.00

*Fee may vary slightly depending on the Faculty but will not exceed $76.50.
**General and personal expenses listed are estimates and are subject to personal needs.
NOTE: The figures stated above are in Canadian funds. Tuition fees are based on 30 credits. General and personal expenses are estimated for full-time students for 12 months. Fees are subject to change without notice.
NOTE: Students who qualify for an exemption from the differential fee for International students pay the regular home fee of $1945 which includes tuition and compulsory fees for 30 credits. Refer to §19.3 for Exemptions from Differential Fees.

student and alumni associations

20.1 ***UNDERGRADUATE STUDENTS***

20.2 ***GRADUATE STUDENTS***

20.3 ***ALUMNI***

section

20

20 STUDENT AND ALUMNI ASSOCIATIONS

20.1 UNDERGRADUATE STUDENTS

The **Concordia Student Union (CSU)** represents most undergraduate students, both full-time and part-time. Besides organizing many events and activities, CSU ensures student representation on University decision-making bodies, both those that legislate on academic and administrative matters and those concerned with the cultural and social life of the community. There are student members of the Board of Governors, Senate, the Faculty Councils, and the Concordia Council on Student Life, which is directly concerned with the provision of student services.

Powers and responsibilities are divided between three bodies: the Executive, the Council of Representatives, and the Judicial Board. The Executive is headed by an elected president. The Council of Representatives consists of students elected from the four Faculties and Independent students. The Judicial Board is an appointed body charged with assuring the constitutionality of any new legislation.

Students in two Faculties are also represented by their own associations: the **Commerce and Administration Students' Association (CASA)** and the **Engineering and Computer Science Students' Association (ECA)**.

The CSU has more than 75 member-clubs and associations. They may be associated with a department or discipline, such as the Psychology Students' Association or pursue a special interest like the Debating Society. Each has its own programme of activities, funded by the CSU. There are numerous clubs and associations for students of particular ethnic backgrounds under the Office of the Dean of Students.

Other activities that come under the CSU umbrella are a student newspaper, *The Voice*, the television station *CUTV*, the radio stations *CFLI* and *CRSG*, and the Concordia Winter Carnival. Two other student newspapers, *The Link* and the *Concordian*, operate independently of the student associations. Both newspapers are incorporated, with separate, wholly autonomous Boards of Directors.

There is a CSU office on each campus. The Sir George Williams office is in Room H 637 of the Henry F. Hall Building (514) 848-7474. The Loyola office is in Room 103 in the Campus Centre (514) 848-7440.

20.2 GRADUATE STUDENTS

Graduate students become members of the Graduate Students' Association (GSA). It is concerned with graduate student representation on the Board of Governors, Senate, the School of Graduate Studies and Faculty Councils, and initiates a wide range of activities for graduate students and the University community as a whole, including social occasions, lectures, and concerts. The Association publishes a regular newsletter. Its offices are at 2030 Mackay Street (514) 848-7900.

20.3 ALUMNI

The **Concordia University Alumni Association Inc.** was created in 1983. In the words of its constitution, the Association exists to "encourage the fellowship of graduates from Loyola, Sir George Williams, and Concordia University through social, educational and cultural activities" and to "preserve and promote the interests of Concordia University through alumni involvement in its future and governance".

All graduates of the University are automatically lifetime members of the Association, as are graduates of Concordia's two founding institutions: Loyola College and Sir George Williams University.

The Concordia University Alumni Association provides alumni with a variety of programmes and services. All graduates receive the quarterly *Concordia University Magazine* and the biannual *Calendar of Events*. Alumni are also encouraged to participate in the Enhanced Benefits Programme by purchasing a permanent identification card. This identification card allows graduates to take advantage of University library borrowing privileges, audiovisual and wordprocessing services, discounts on life/auto/home insurance, computer and art supplies, fitness and health programmes, and legal information services. Alumni may also benefit from the Concordia University/Bank of Montréal MasterCard, Tilden Rent-a-Car discount rates, Laurentian Bank benefit programme, ACC Long Distance savings plan, and more.

Other programmes include the Grad Finale, a celebration in honour of graduating students; a convocation photography service for graduating students; the Mentor Programme, which gives current students the opportunity to draw upon the vast experience of Concordia's alumni; and the Alumni Recognition Awards Programme, which honours the outstanding volunteer contributions of alumni, faculty, students, and friends of the University.

The Concordia University Alumni Association is committed to the development and support of a worldwide network of alumni chapters. Currently, we have active alumni groups in Ottawa, Toronto, Calgary, Edmonton, Vancouver, Victoria, Boston, New York, Trinidad, and Hong Kong.

For more information please contact either of our two offices: Sir George Williams Campus, 1463 Bishop Street, Room BC 101 – (514) 848-3818 or fax (514) 848-2826 or Loyola Campus, 7141 Sherbrooke Street West, Room CC 324 – tel/fax (514) 848-3823.

centre for continuing education

21.1 *APPLIED ARTS/COMMUNICATIONS*

21.2 *BUSINESS AND ADMINISTRATION*

21.3 *CONTINUING EDUCATION COMPUTER INSTITUTE*

21.4 *CONTINUING EDUCATION LANGUAGE INSTITUTE*

21.5 *EDUCATIONAL TRAVEL PROGRAMMES*

21.6 *GENERAL SEMINARS AND WORKSHOPS*

21.7 *HOSPITALITY MANAGEMENT AND TOURISM*

21.8 *INSTITUTE IN MANAGEMENT AND COMMUNITY DEVELOPMENT*

section 21

21 CENTRE FOR CONTINUING EDUCATION

Director
RICHARD J. DIUBALDO
(514) 848-3601

Assistant Director and Administrator of Business and Administration Programmes
MURRAY SANG
(514) 848-3603

Administrator of Applied Arts/Communications; Hospitality Management and Tourism
JULIA DENKER
(514) 848-3605

Administrator of the Computer Institute
JOHN DICKSON
(514) 848-3606

Administrator of the Language Institute
GWYNN CHERRIER
(514) 848-3607

Coordinator of the English Programmes
P. CHARLES BROWN
(514) 848-3610

Location

Sir George Williams Campus
1822 de Maisonneuve Blvd. West, 1st floor
(514) 848-3600

As part of its commitment to the lifelong pursuit of education, Concordia University, through its Centre for Continuing Education, offers a variety of non-credit educational programmes for adults. These are designed to meet the practical needs and interests of people in the workplace, helping them to refine and improve their skills.
Students may choose individual courses or a programme series to earn Certificates in a particular area. The Centre's courses and programmes do not count towards any of the degree or Certificate programmes offered by the Faculties of the University.
Detailed course and programme descriptions are available from the Centre for Continuing Education.

21.1 APPLIED ARTS/COMMUNICATIONS

Communications Programme: The Centre for Continuing Education offers Certificate programmes in communications: *Journalism, Advertising, Public Relations, Graphics, Radio and Television Production, Specialized Writing,* and *Technical Communication.* All courses are taught by professionals who work in the media or related fields.

Practical Photography: This programme consists of six-week and twelve-week courses at levels ranging from the basics of camera operation or darkroom procedures to advanced photographic skills, as well as digital photography using Adobe Photoshop. The courses combine lectures with hands-on participation.

Principles of Physical Fitness: This practical course is designed for the person who wishes to maintain a healthy lifestyle with regular exercise and proper nutrition. The course takes place on Saturday mornings for 11 weeks.

Visual Arts: The Visual Arts programme offers interested students the opportunity to work with professional artists from the Montréal community in drawing, painting, life drawing, sculpture, multimedia, and watercolour. Each course is made up of 10 or 12 three-hour sessions given one day or evening a week.

21.2 BUSINESS AND ADMINISTRATION

CEBS — The Certified Employee Benefit Specialist Programme: The CEBS programme is a 10-course curriculum co-sponsored by the International Foundation of Employee Benefit Plans and Concordia's Centre for Continuing Education. Students who successfully complete the programme earn professional designation as Certified Employee Benefit Specialists.
Dalhousie University is responsible for the academic content and standards of the programme; the International Foundation is responsible for overall administration. The final certification is issued jointly.

International Trade: This series of courses is offered to people who wish to expand their knowledge in importing and exporting. Each course concentrates on one important aspect of international business. Ten (10) courses are required for the completion of a Certificate.

Management Practices Programme: This series of courses in management and administrative subjects is for people who wish to expand their knowledge in selected business fields. Each course concentrates on one important area of business activity. A certificate is awarded upon the completion of 10 courses.

Marketing Programme: This series of courses is offered to people who wish to expand their knowledge in the selected area of marketing. Each course concentrates on a specific area and helps the "marketing manager" develop the necessary tools and knowledge to be effective in the marketing process.
To qualify for a Certificate in Marketing, candidates must successfully complete a total of 10 courses, six compulsory and any four elective courses offered in this programme.

Purchasing and Inventory Control: This programme is designed for those who wish to expand their expertise in buying and materials management. A Certificate in Purchasing and Inventory Control is awarded upon successful completion of 10 courses.

Small Business Management Programme: Designed as a "how to" guide for the entrepreneur, this programme offers essential information and advice for assuming the risk of a business or enterprise. To qualify for the Certificate in Small Business Management, candidates must successfully complete a total of 10 courses — six compulsory and any four elective courses offered in the Small Business Management programme.

Interest courses: The Business and Administration section also offers single courses not included in any programme. These include Tax Planning and Investments; A Guide to Real Estate Investment; Trading in Options and Stocks; Stocks, Bonds and Other Investments; Community Management and Development; and courses in Quality Assurance.

21.3 CONTINUING EDUCATION COMPUTER INSTITUTE

Computer Applications Programming (Day Division): Students who successfully complete this programme earn a Certificate in Computer Applications Programming, a useful qualification which demonstrates a solid background in business programming and systems analysis skills. Extensive "hands-on" experience, in addition to regular classroom teaching, is provided on the Centre's own computing facilities. To qualify for the Certificate, students must complete three intensive courses. Each 10-week course runs during the daytime and includes 30 hours of theoretical and practical work per week.

Managing Information Systems: This programme offers a solid background in the management and application of computers to business systems. To qualify for the Certificate, candidates must successfully complete 10 courses, either in Information Systems Management (Option 1) or Software Engineering (Option 2). Students may also take any course on an independent basis, provided any prerequisites are met.

Electronic Office Systems Technology (E.O.S.T.): The Certificate programme in E.O.S.T. is for students interested in acquiring the "high-tech" microcomputer skills needed in business and industry today. Students must successfully complete 10 courses to obtain the Certificate. Students may also take any course on an independent basis, provided any prerequisites are met. This programme is also available on an intensive daytime eight-week basis.

Computer Software Seminars: The Computer Institute organizes weekend or evening hands-on seminars. These intensive one- and two-day seminars are scheduled throughout the academic year and are open to anyone wishing to master the most popular software packages on the market. Seminar schedules are available at the Centre.

21.4 CONTINUING EDUCATION LANGUAGE INSTITUTE

The Continuing Education Language Institute is a division of the Centre for Continuing Education offering year-round language programmes in English and French. These non-credit courses are designed to meet the needs of students seeking language training for professional, social, and academic purposes. Day, evening, and Saturday courses are offered from September to April. Between June and August, only English day courses are offered.

Students may choose from several programmes, ranging from four to 24 hours a week. Class size is limited to ensure maximum student/instructor contact.

English Language Programmes
Three distinct English language programmes are offered: the Intensive (day), the Conversation (evening or Saturday), and the Writing Workshop (Saturday). For each programme, a Certificate of Proficiency is awarded upon successful completion (75%) of the advanced level.
TOEFL preparation and writing for the CELDT courses are also offered year-round.

French Language Programmes:
French courses are offered at all levels from Beginners through Advanced. The main objective of this programme is to help students develop skills to communicate in social and work-related situations.
For qualified students, the following courses are offered:

- advanced oral communication
- advanced written French
- advanced business French.

A Certificate of Proficiency is awarded upon successful completion (75%) of the Advanced level.

Special Programmes:
Special language courses in English and French can be created to suit the needs of individual groups. Sponsoring agencies should write directly to the Institute for further information.

21.5 EDUCATIONAL TRAVEL PROGRAMMES

The Centre for Continuing Education, in co-operation with the academic departments of the University, organizes a number of travel programmes, generally between May and August. Some are regular Concordia credit courses under the direction of a faculty member; others are for interest only. The resources of academic, business, and social institutions in other countries enhance the academic and cultural components of the courses. For current offerings, contact the Centre.

21.6 GENERAL SEMINARS AND WORKSHOPS

The Computer Institute and the Business and Administration Section regularly offer practical seminars and workshops to professionals, business personnel, and others who wish to enrich their computer and business knowledge and skills. The seminars and workshops are provided either in the Centre's own well-equipped facilities or at other seminar and business locations.
For information on these workshops, contact the Centre for Continuing Education.

21.7 HOSPITALITY MANAGEMENT AND TOURISM

Hospitality Management Programme: This programme provides training in the special skills required to manage hotels, restaurants, and institutional and commissary food-service establishments. Each course involves 12 weekly two-hour evening classroom sessions. Students must complete 10 courses to obtain the Certificate of Hospitality Management.

Tourism Programme (Day or Evening Division): The Tourism programme trains people for work in travel agencies, airlines, travel departments and other enterprises within the tourism industry. The courses are valuable to those beginning a career in tourism as well as to experienced travel agency employees interested in upgrading their skills. Candidates must successfully complete nine courses to obtain the Certificate in Tourism.

21.8 INSTITUTE IN MANAGEMENT AND COMMUNITY DEVELOPMENT

The Institute in Management and Community Development works with community groups and non-profit organizations in acquiring new skills and approaches to combat poverty. Its goal is to assist groups in generating innovative programmes that draw on the human resources at Concordia and in our communities, and to empower participants in creating solutions to the social and economic inequities facing them.
The Institute also offers ongoing outreach and training sessions to community non-profit organizations. These are designed to provide in-depth training and skill enhancement, and to open up the resources of the University to the community.
Each summer the Institute offers a programme, national and international in scope, which is open to

all and examines community-related issues such as: Community Economic Development, Building Community Involvement and Leadership, Affordable Housing Alternatives, and Running Effective Community-Based Organizations. Courses are taught by practitioners who excel in the field. For more information, contact Lance Evoy, Institute Coordinator, 7141 Sherbrooke West, Room: AD 420, Montréal, Québec, H4B 1R6 (514) 848-3956 or fax (514) 848-4598.

off-campus education and distance learning

22.1 *OFF-CAMPUS EDUCATION*

22.2 *DISTANCE LEARNING*

22.3 *REGISTRATION FOR OFF-CAMPUS AND DISTANCE CREDIT COURSES*

section

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22 OFF-CAMPUS EDUCATION AND DISTANCE LEARNING

Location

7141 Sherbrooke Street West, Room AD 420
Montréal, Québec, H4B 1R6
(514) 848-3955

22.1 OFF-CAMPUS EDUCATION

Concordia University offers credit courses off-campus during the Regular (Fall/Winter) and Summer sessions. The courses are designed to be of interest to persons who find it inconvenient, for whatever reason, to attend classes on either campus. The University is prepared to offer courses wherever there is a sufficient demand, provided that qualified instructors are available. Off-campus courses have the same credit value as on-campus courses.
Persons interested in obtaining further information about programmes, or in having courses offered at a particular location, should contact the office.

22.2 DISTANCE LEARNING

Distance learning is not a new concept; university level correspondence courses have been available from various sources for many years. Today, thanks to the new technologies, courses may be offered via such media as audiotape, videotape, cable tv, teleconferencing, satellite, and computers. The distance mode satisfies a need for students who, for professional or personal reasons, cannot attend university or are located in remote areas with no access to higher education.
One of the media used by Concordia is *C.A.N.A.L.* (Corporation pour l'Avancement de Nouvelles Applications des Langages/The Corporation for the Advancement of New Applications of Languages). This non-profit organization is a consortium of Québec universities and colleges set up to provide broadcast facilities for the distribution of credit and non-credit courses. The consortium operates a television station on UHF Channel 29, which is also carried on Cable Channel 23 in the Montréal area and several other regions of the province. Many of the credit courses are also carried over the Radio-Québec network.
For further information please contact the Concordia Centre for Off-Campus and Distance Learning (514) 848-3955.

22.3 REGISTRATION FOR OFF-CAMPUS AND DISTANCE CREDIT COURSES

It should be noted that registration in a course does not constitute admission to the University. While registration as an independent student is possible, those registering for courses are encouraged to apply for admission to the University. To obtain information about registration for off-campus and distance courses, call (514) 848-3955.

teacher certification and programmes of interest to teachers

23.1 *INTRODUCTION*

23.2 *INITIAL CERTIFICATION PROGRAMMES*

23.3 *RE-CERTIFICATION PROGRAMMES*

23.4 *PROGRAMMES OF INTEREST TO TEACHERS*

23.5 *"BEYOND DEGREE (OR CERTIFICATE) REQUIREMENTS" NOTATION ON RECORD*

23.6 *CITIZENSHIP REQUIREMENTS*

23.7 *ASSISTANCE*

section

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23 TEACHER CERTIFICATION AND PROGRAMMES OF INTEREST TO TEACHERS

Coordinator of Teacher Training and Certification:

John Fiset

Mailing Address:
Concordia University
7141 Sherbrooke St. West
Room: RH 105

Office Location:
Loyola Campus
7312 Sherbrooke St. West
Room: RH 105

23.1 INTRODUCTION

The Ministry of Education recognizes Concordia University as a centre for teacher training in the areas of adult education, early childhood education, English as a second language, and fine arts. Successful graduates will receive a licence to teach within the province of Québec.
Two types of certification programmes are available at Concordia: initial certification and re-certification. Upon graduation, students enrolled in initial certification programmes will receive their first licence to teach. Re-certification programmes are designed for individuals who have an initial teaching licence and who wish to obtain certification in another area.
In addition to the certification programmes, Concordia offers several other programmes for professional development: Certificate programmes at the undergraduate level and Diploma programmes which are at the graduate level and require an undergraduate degree for admission.
Because Concordia University has chosen not to organize its programmes for teachers into a single faculty, the courses and programmes for teachers are listed under several different departments and faculties. Potential students are advised to consult the specific academic departments for further information.

23.2 INITIAL CERTIFICATION PROGRAMMES

Individuals who successfully complete the following programmes will be eligible for Québec certification. For further information please contact the appropriate academic department.

1. Certificate in Education (Restricted to individuals presently teaching in Québec with a P.T.A.) (30 credits). See §31.090
2. BA (Specialization in Early Childhood and Elementary Education) (120 credits). See §31.090
3. BEd (Teaching of English as a Second Language) (90 credits). See §31.320*
4. Diploma in Art Education (30 credits).*
5. Diploma in Adult Education (Certification Option) (30 credits).

**The BEd (Teaching of English as a Second Language) is being modified in accordance with new M.E.Q. guidelines which require 700 hours of practical experience in a four-year teaching-training format. The revised programme will appear in the 1997-98 Undergraduate Calendar.*

23.3 RE-CERTIFICATION PROGRAMMES

Individuals who have a Québec teaching licence and who successfully complete these programmes will be eligible to receive additional certification. For further information please contact the appropriate department.

1. Certificate in Art Education for Teachers (Elementary School Level) (30 credits). See §81.50
2. Certificate in the Teaching of English as a Second Language, Sequences I and II (30 credits). See §31.320
3. Diploma in Early Childhood Education (30 credits).

23.4 PROGRAMMES OF INTEREST TO TEACHERS

The following programmes do not lead to a teaching licence but are recognized by the Ministry of Education for professional development.

1. Certificate in Adult Education (30 credits). See §31.090
2. Certificate in Family Life Education (30 credits). See §31.010
3. Certificate in Mathematics for Teachers (Elementary School Level and Junior Secondary School Level) (30 credits). See §31.290

4. Certificate in Teaching French as a Second Language to Adults (30 credits). See §31.110
5. BFA (Specialization in Art Education) (90 credits). See §81.50
6. Diploma in Adult Education (Non-certification Option) (30 credits).
7. Diploma in Institutional Administration (33 credits).
8. Diploma in Instructional Technology (30 credits).
9. Diploma in Library Studies (33 credits).
10. Diploma in Sports Administration (33 credits).
11. Diploma in the Teaching of Mathematics (30 credits).
12. Diploma in Theological, Religious and Ethical Studies (33 credits).
13. MA in Applied Linguistics (45 credits).
14. MA in Art Education (45 credits).
15. MA in Child Study (45 credits).
16. MA in Educational Studies (45 credits).
17. MA in Educational Technology (60 credits).
18. M in the Teaching of Mathematics (MTM) (45 credits).
19. PhD, Art Education (90 credits).
20. PhD, Educational Technology (90 credits).

23.5 "BEYOND DEGREE (OR CERTIFICATE) REQUIREMENTS" NOTATION ON RECORD

When students so desire, courses previously completed and which were not counted towards their degree (or Certificate) may be identified on the record as "Beyond Degree (or Certificate) Requirements".
For further information, contact the Birks Student Service Centre.

23.6 CITIZENSHIP REQUIREMENTS

Permanent teacher certification in Québec is only available for Canadian Citizens. Students who have Landed Immigrant status or who hold an appropriate work permit at the time of their graduation may be eligible for a temporary licence to teach. Although students with a visa can complete teacher training programmes at Concordia University and receive a university degree, they are not eligible for certification by the Ministry of Education of Québec.

23.7 ASSISTANCE

Students who encounter difficulties with respect to certification prior to graduation should contact the coordinator of Teacher Training and Certification. Graduates of Concordia with certification problems should contact the Directeur, Direction de la titularisation et de la classification du personnel enseignant, 955 chemin St-Louis, Sillery, Québec, G1S 4S4.

institute for
co-operative education

section

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24 INSTITUTE FOR CO-OPERATIVE EDUCATION

Principal
GRAHAM MARTIN, *Associate Professor*

Vice Principal
JOHN FISET

Fellows and Programme Directors
SABAH T. ALKASS, *Associate Professor, Centre for Building Studies (Director, Building Studies Co-op)*
MARTHE J. CATRY-VERRON, *Associate Professor, Études françaises (Director, French Translation Co-op)*
NELSON W. EDDY, *Associate Professor, Physics (Director, Physics Co-op)*
MOHAMED EL-LOUADI, *Assistant Professor, Decision Sciences and Management Information Systems (Director, Management Information Systems Co-op)*
DAVID FORD, *Associate Professor, Computer Science (Director, Computer Science Co-op)*
SANDRA M. ROBINSON, *Lecturer, Accountancy (Director, Accountancy Co-op)*
BALBIR S. SAHNI, *Associate Professor, Economics (Director, Economics Co-op)*
HAROLD J. SIMPKIN, *Sessional Lecturer, Marketing (Director, Marketing Co-op)*
MANFRED E. SZABO, *Professor, Mathematics and Statistics (Director, Mathematics and Statistics Co-op)*
RAYMOND H. ZIENIUS, *Associate Professor, Chemistry and Biochemistry (Director, Chemistry and Biochemistry Co-op)*

The University through the Institute for Co-operative Education offers programmes in the co-operative format in the Departments of Chemistry and Biochemistry, Economics, French Translation, Mathematics and Statistics, and Physics in the Faculty of Arts and Science; in the Centre for Building Studies and the Department of Computer Science in the Faculty of Engineering and Computer Science; and in the Departments of Accountancy, Marketing, and Decision Sciences and Management Information Systems in the Faculty of Commerce and Administration.
As it becomes feasible, the University may consider offering other disciplines in the co-op format.

The Co-op Philosophy
Co-operative education is an educational process in which Academic Study terms are alternated with Work terms in the public and private sectors. Students obtain practical on-the-job experience in their academic discipline while continuing their studies towards a degree. It is a system that integrates the interests of employers, educators, and students.

Advantages of a Co-op Education
Integrating theory and practice in a structured and purposeful manner allows the student to come to terms with the realities of professional practice in a way that allows for the development of self-confidence, self-reliance, and self-motivation. From the Work terms, students learn to accept responsibility and the importance of deadlines. Realistic career expectations may be more easily formed. In the Institute, besides technical knowledge and practical experience, students gain skills in interpersonal relations through participation in seminars, workshops, talks, and social activities.
Employers benefit as well. The employer who agrees to cooperate with the Institute benefits from the opportunity to evaluate prospective personnel without making permanent employment commitments and from the availability of students on a year-round basis. In recruiting permanent employees, they have available to them trained graduates with work experience who can be productive with little or no training period.
The collaboration between employers and faculty is mutually beneficial, providing an opportunity for employers to contribute to, and influence, the educational process, and for the faculty to become aware of latest developments in industry. In some cases joint industry-university research projects result.

Admission to Co-op
Admission to co-op is selective based on academic performance, as well as other factors such as extracurricular activities, communication skills, motivation, personality, and drive. Applicants must be legally eligible to work in the public and private sectors.
Students applying should so indicate by filling the appropriate box on the University Admissions form. After acceptance by the University, applicants will normally be interviewed by the appropriate co-op committee. Applicants may be asked to provide a résumé of past work experience and a statement of the reasons for their interest in the co-op format.
Students accepted to the programme will be assigned a co-op adviser from within their academic

department. It should be noted that, in the Faculty of Arts and Science, only Honours and Specialization programmes are offered in the co-op format.

Co-op Fee
Students should note that a co-op fee was instituted to cover in part the administrative costs particular to the co-op programme. This fee is currently $150 per term and is charged for the second to penultimate terms inclusive. Students requiring less than the normal number of terms to complete their programmes in the co-op format are subject to the same total fee as those requiring the normal number of terms.
Co-op fees are due one month before the first day of eligible terms and are not refundable after the first day of the third month of the term, i.e., March 1, July 1 and November 1.

Co-op Performance Requirements
Students permitted to undertake their studies in the co-op format enrol as regular undergraduates in their programme and are subject to its academic regulations. However, higher performance standards are often required to continue in the co-op format.
Students undertaking the co-op format in a programme offered by the Faculty of Arts and Science are normally required to maintain a GPA of 2.50, and normally with no grade lower than a "D" in any course, elective or required. Students registered in Honours programmes must meet the Faculty Honours programme academic requirements.
Students registered in the co-op programmes in the Faculty of Engineering and Computer Science are normally required to maintain an overall GPA of 2.70 with no single term below 2.50.
Students registered in the co-op programmes in the Faculty of Commerce and Administration are normally required to maintain an annual GPA of 2.70 or better and no failing grades.
The evaluation of each of the required Work terms will be based on the submission of a work-term report by the student and the evaluation of the student's performance by the employer. The student must successfully complete both components to pass the Work Term which is marked on a pass/fail basis. The work-term reports are not considered for degree credits.
Failure to meet the co-op academic requirements or failure to complete a Work Term will normally result in the withdrawal of the student from the Institute for Co-operative Education.

Work Term
Co-operative education at Concordia is not to be construed as a placement operation or an inexpensive labour apprenticeship. The Work Term is an essential part of the student's learning experience and there is to be equitable remuneration paid for work performed. The University is responsible for negotiating Work terms with employers who provide job descriptions to the Institute for Co-operative Education. The procedures for matching students to employers are managed by the Institute. Students must be willing to work anywhere in Canada, and may go abroad for a Work Term. A co-op coordinator or participating faculty member visits the students at their place of work to evaluate the work performance, gauge the learning opportunities, assess the compatibility of student and employer and, if necessary, take corrective action. **It should be noted that the University does not guarantee every student a job.**

UNDERGRADUATE PROGRAMMES

Co-op programmes offered in the **Faculty of Arts and Science:**

Chemistry and Biochemistry Co-op
Director: Dr. Raymond H. Zienius, (514) 848-3352

The Chemistry and Biochemistry co-operative programme is offered to students who are enrolled in the BSc Honours or Specialization in Chemistry, Biochemistry, Analytical Chemistry.
Students in Chemistry and Biochemistry co-op take the regular academic programme; however, in the Work terms the employment opportunities range among a wide variety of industrial and government agencies located throughout Canada. Students are encouraged to choose their work-term positions in a way which provides them with experience ranging from basic analysis in industrial processes and environmental control to senior research placements in the laboratories of various employers. For specific details concerning the curriculum please see §31.050.

Economics Co-op
Director: Dr. Balbir S. Sahni, (514) 848-3908

The Economics co-operative programme enables students to complete a BA Honours or Specialization in Economics. The academic content of the Economics co-op programme is identical to the regular programme; however, the required Work terms provide the co-op student with the unique opportunity of experiencing economics in an applied format.
Because of the course choices available, an Economics co-op student is prepared to undertake employment during his or her Work terms in a variety of public sectors including Provincial and

federal government agencies. Private sector positions might include placements in banks, consulting firms, or planning departments in a variety of industries. For specific details concerning the curriculum please see §31.080.

French Translation Co-op
Director: Marthe Catry-Verron, (514) 848-7512

The Translation co-operative programme enables students to complete a specialized BA in Translation. The Translation co-op programme is identical to the regular programme; however, the required Work terms provide the co-op students with the unique opportunity to apply their translation skills in the government and corporate sectors. Work opportunities are found in environments such as government ministries, communication departments, and various organizations such as technical publishers, consultants, advertising agencies, and similar. For specific details concerning the curriculum please see §31.110.

Mathematics and Statistics Co-op
Director: Dr. Manfred E. Szabo, (514) 848-3251

The Mathematics and Statistics co-operative programme allows students to complete the BA or BSc degrees with Honours or Specialization in Mathematics, Applied Mathematics, Statistics, or Actuarial Mathematics. The academic content of the Mathematics and Statistics co-op programmes is identical to the regular programmes.
Work terms provide co-op students with the opportunity to gain practical experience with a variety of employers, such as insurance companies, consulting firms, large Canadian corporations, government departments, and research establishments. For specific details concerning the curriculum please see §31.200.

Physics Co-op
Director: Dr. Nelson W. Eddy, (514) 848-3274

The Physics co-operative programme is available to students in the BSc Honours and Specialization in Physics. The academic content is very similar to the regular programmes, with some specific recommendations for courses to improve the student's job skills. Students must be prepared to work in all parts of Canada. For specific details concerning the curriculum please see §31.230.

Co-op programmes offered in the **Faculty of Engineering and Computer Science**:

Building Engineering Co-op
Director: Dr. Sabah T. Alkass, (514) 848-3197

The Building Engineering programme is offered in the co-op format to selected students pursuing undergraduate studies leading to the degree of BEng (Building). The academic content of the Building Engineering co-op programme is identical to the regular programme. Work-term opportunities range from a variety of industrial, government, and consulting organizations in and out of town. Students are encouraged to choose placement in both public and private sectors, and to mix office experience with site work. Please refer to §71.10.8 and 71.30 for specific information on programme and performance requirements.

Computer Science Co-op
Director: Dr. David Ford, (514) 848-3015

All options in the Computer Science programme are offered in the co-op format to selected students enrolled in the BCompSc programme. Co-op students in Computer Science take the regular academic programme; however, they have the opportunity through the Work terms to experience computer science in the government and corporate sectors. As students near the end of their studies, they are able to choose placements directly related to their option, i.e. information systems, software systems, or systems architecture. Please refer to §71.10.8 and 71.80 for specific information on programme and performance requirements.

Co-op programmes offered in the **Faculty of Commerce and Administration**:

Accountancy Co-op
Director: Sandra M. Robinson, (514) 848-2748

The Accountancy co-operative programme is available to students who are enrolled in the BComm programme and are majoring in Accountancy.
The academic content is very similar to that of the regular programmes, with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. While it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada. For specific details concerning the curriculum please see §61.40.

Management Information Systems Co-op
Director: Dr. Mohamed El-Louadi, (514) 848-2975

The Management Information Systems co-operative programme is available to students who are enrolled in the BComm programme and are majoring in Management Information Systems. The academic content is very similar to that of the regular programmes, with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. While it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada. For specific details concerning the curriculum please see §61.40.

Marketing Co-op
Director: Harold Simpkin, (514) 848-2955

The Marketing co-operative programme is available to students who are enrolled in the BComm programme and are majoring in Marketing. The academic content is very similar to that of the regular programmes, with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. The programme is new and while it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada. For specific details concerning the curriculum please see §61.100.

CO-OP SCHEDULE

Activity **flow-chart** for students undertaking their programmes in the co-op format except for the French Translation Co-op.

YEAR	FALL Sept.-Dec.	WINTER Jan.-April	SUMMER May-Aug.
1	1st Campus Term	2nd Campus Term	**Work Term I**
2	3rd Campus Term	**Work Term II**	4th Campus Term
3	**Work Term III**	5th Campus Term	**Work Term IV**
4	6th Campus Term	7th Campus Term*	

**The 7th Campus Term applies to the BEng programme only.*

NOTE 1: The above activity flow-chart is for students admitted into the co-op format in the Fall Term of the first year of their academic programme. However, students may be admitted at the start of its Winter Term, following their September entry, with special permission. All are required to register as full-time students, and they must plan their studies to give a reasonable division of the total credits required for their degree between the specified number of Campus terms. Students eligible to apply for NSERC grants should note that they must take at least 15 credits per term to be considered.
NOTE 2: The Work Term negotiated with the employer is for a minimum of fourteen weeks. Extension beyond this period, to a maximum of seventeen weeks, is at the sole discretion of the employer. To complete the requirements of each Work Term, a student's work-term report must be assessed as "pass" in accordance with the procedure specified under "Co-op Performance Requirements".

CONTACTS AT THE INSTITUTE

Principal
Prof. Graham Martin
(514) 848-3951

Vice Principal and Coordinator for Chemistry and Biochemistry and Physics Co-op programmes
Mr. John Fiset
(514) 848-3952

Coordinators
Ms. Ellen Sheehy
Building Engineering, Computer Science, and Management Information Systems Co-op programmes
(514) 848-3953

Ms. Louise Lalonde
Economics and Accountancy Co-op programmes
(514) 848-3954

Ms. Ghislaine Yelle
Mathematics and Statistics, and French Translation Co-op programmes
(514) 848-3958

Co-op Programme Administrator
Ms. Lynn Bergeron
(514) 848-3975

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convocation medals and prizes

25.1 ***GOVERNOR GENERAL'S AWARD***

25.2 ***UNIVERSITY AWARDS***

25.3 ***FACULTY AWARDS***

- **25.3.1** Faculty of Arts and Science
- **25.3.2** Faculty of Commerce and Administration
- **25.3.3** Faculty of Engineering and Computer Science
- **25.3.4** Faculty of Fine Arts

25.4 ***SPECIAL AWARDS***

section 25

25 CONVOCATION MEDALS AND PRIZES

25.1 GOVERNOR GENERAL'S AWARD

The Governor General's Medal: Presented by his Excellency, the Governor General of Canada, and awarded to the highest ranking student graduating from Concordia University.

25.2 UNIVERSITY AWARDS

The Birks Medal: Presented by Henry Birks & Sons (Montréal) Ltd., and awarded to the highest ranking student graduating with a BA degree.

The Mappin Medal: Presented by the Mappin Family, and awarded to the highest ranking student graduating with a BSc degree.

The Frosst Medal: Presented by Charles E. Frosst & Co., and awarded to the highest ranking student graduating with a BComm degree.

The Administration Medal: Presented by Y.W. Kan in memory of P. Grogan, s.j., and awarded to the highest ranking student graduating with a BAdmin degree.

The Chait Medal: Awarded to the highest ranking student graduating with a BEng degree.

The Alfred Pinsky Medal: Awarded to the most outstanding student graduating with a BFA degree.

The Computer Science Medal: Awarded to the highest ranking student graduating with a BCompSc degree.

The Anne Stokes Medal: Awarded to the highest ranking student graduating with a BEd degree in Teaching of English as a Second Language.

25.3 FACULTY AWARDS

The prizes listed in this section are awarded to the most outstanding graduating student in a department (or unit). Candidates are nominated by the departments or units for consideration and approved by the appropriate Faculty Council and Senate. The departments or units in making their selection may include, in addition to a high grade point average, other criteria such as number and/or level of the courses taken, outstanding results on a project or essay, or a significant contribution to the extra-curricular life of the department.

25.3.1 Faculty of Arts and Science

The Robert C. Rae Book Prize in Applied Social Science
The Avenor Inc. Prize in Biology
The Celanese Canada Ltd. Prize for Chemistry
The Classics Book Prize
The John E. O'Brien, s.j. Medal for Communication Studies
The Sun Life Prize in Economics
The Education Book Prize
The Celanese Canada Ltd. Prize for English
The Exercise Science Plaque
Le prix Paul d'Hollander pour les Études françaises
The Bogdan Zaborski Medal in Geography
The André Deland Medal for Geology
The Martin Lewis Memorial Book Prize in History
The Interdisciplinary Studies Medal
The Gordon Fisher Prize for Journalism
The Leisure Studies Medal
The Liberal Arts College Prize
The Library Studies Plaque
The Lonergan University College Prize

The Eric O'Connor Mathematics Medal
The Modern Languages and Linguistics Plaque
The W.R. Fraser Medal for Philosophy
The Walter Raudorf Medal for Physics
The Renée Vautelet Prize for Political Science
The J.W. Bridges Medal for Psychology
The Boyd Sinyard Prize for Religion
The Vince Sirois Prize (School of Community and Public Affairs)
The Science College Prize
The Everett C. Hughes Medal for Sociology and Anthropology
The Theological Studies Medal
The Thérèse F. Casgrain Medal for Women's Studies

25.3.2 Faculty of Commerce and Administration

The Ross Medal for Accountancy
The Decision Sciences and Management Information Systems Medal
The Finance Medal
The International Business Medal
The Management Medal
The Marketing Medal

25.3.3 Faculty of Engineering and Computer Science

The Building Engineering Medal
The Matthew Douglass Medal for Civil Engineering
The Computer Engineering Medal
The Phoivos Ziogas Medal for Electrical Engineering
The Jaan Saber Medal for Industrial Engineering
The Mechanical Engineering Medal

25.3.4 Faculty of Fine Arts

The Art Education Prize
The Art History Prize
The Cinema Prize
The Contemporary Dance Prize
The Design Art Prize
The Music Prize
The Painting and Drawing Prize
The Printmaking and Photography Prize
The Sculpture, Ceramics and Fibres Prize
The Theatre Prize

25.4 Special Awards (Awards are made only when merited)

The Concordia Medal: Presented by the Concordia University Alumni Association to an undergraduate graduating student who has displayed distinctive leadership ability through both academic and non-academic achievements and has won the outstanding commendation of his/her fellows and of the faculty.

The First Graduating Class Award: Presented on behalf of the first graduating class of the Faculty of Arts, Science and Commerce of Sir George Williams College, known as the Guinea Pig Club, for the most innovative and new contribution either academic or extra-curricular to University life.

The Malone Medal: Presented in honour of Rev. Patrick G. Malone, s.j., and awarded to the undergraduate graduating student whose efforts and dedication best exemplify the values of the University within the *internal* Concordia community.

The O'Brien Medal: Presented in honour of Dr. J.W. O'Brien and awarded to the undergraduate graduating student whose efforts and dedication best exemplify the values of the University within the larger *external* community.

faculty of arts and science

31.001 *FACULTY OF ARTS AND SCIENCE*
31.002 *PROGRAMMES AND ADMISSION REQUIREMENTS*
31.003 *DEGREE REQUIREMENTS*
31.004 *JOINT PROGRAMMES*
ADULT EDUCATION (See 31.090.1)
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31.030 *BIOLOGY*
31.040 *CANADIAN STUDIES*
31.050 *CHEMISTRY AND BIOCHEMISTRY*
31.060 *CLASSICS*
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31.090 *EDUCATION*
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ENGLISH AS A SECOND LANGUAGE (See 31.320)
31.110 *ÉTUDES FRANÇAISES*
31.120 *EXERCISE SCIENCE*
31.130 *GEOGRAPHY*
31.140 *GEOLOGY*
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31.180 *JOURNALISM*
31.185 *LEISURE STUDIES*
31.190 *LIBRARY STUDIES*
31.200 *MATHEMATICS AND STATISTICS*
31.210 *MODERN LANGUAGES AND LINGUISTICS*
31.220 *PHILOSOPHY*
31.230 *PHYSICS*
31.240 *POLITICAL SCIENCE*
31.250 *PSYCHOLOGY*
31.270 *RELIGION*
31.280 *RUSSIAN STUDIES*
31.290 *SCIENCE/MATHEMATICS FOR TEACHERS*
31.300 *SCIENCE AND HUMAN AFFAIRS*
31.310 *SOCIOLOGY AND ANTHROPOLOGY*
31.320 *TEACHING OF ENGLISH AS A SECOND LANGUAGE*
31.330 *THEOLOGICAL STUDIES*
31.340 *URBAN STUDIES*
WOMEN'S STUDIES (See 31.560)
31.400 *COMPUTER SCIENCE*
31.500 *COLLEGES, INSTITUTES AND SCHOOLS*
31.515 *CO-OPERATIVE EDUCATION*
31.520 *LIBERAL ARTS COLLEGE*
31.530 *LONERGAN UNIVERSITY COLLEGE*
31.540 *SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS*
31.550 *SCIENCE COLLEGE*
31.560 *SIMONE DE BEAUVOIR INSTITUTE, and WOMEN'S STUDIES*

section 31

31.001 FACULTY OF ARTS AND SCIENCE

Dean
GAIL VALASKAKIS

Vice-Dean, Research, Space and Development
PETER BIRD

Vice-Dean, Administrative Affairs
MARCEL DANIS

Vice-Dean, Student Affairs
JAMES E. JANS

Vice-Dean, Academic Affairs and International Relations
JUDITH WOODSWORTH

Location

Loyola Campus
Administration Building, Room: AD 324
(514) 848-2080

Structure

The Faculty of Arts and Science, comprised of the former Loyola Faculty of Arts and Science, the former Sir George Williams Faculty of Arts, and the former Sir George Williams Faculty of Science, was brought into being on July 1, 1977.
For administrative purposes, the Faculty consists of departments, programmes, Centres, Colleges, Institutes, and Schools.
The Departments and other units of which the Faculty is comprised are as follows:

Departments
Applied Social Science
Biology
Chemistry and Biochemistry
Classics
Communication Studies
Economics
Education
English
Études françaises
Exercise Science
Geography
Geology
History
Journalism
Leisure Studies
Library Studies
Mathematics and Statistics
Modern Languages and Linguistics
Philosophy
Physics
Political Science
Psychology
Religion
Sociology and Anthropology
Teaching of English as a Second Language
Theological Studies

Colleges
Liberal Arts College
Lonergan University College
School of Community and Public Affairs
Science College
Simone de Beauvoir Institute

Programmes
Individually Structured Programme
Science and Human Affairs
Urban Studies
Women's Studies

Objectives

The Faculty of Arts and Science is committed to a critical approach to the search for truth and the dissemination of knowledge. It orients this approach through the traditional multi-disciplines found within the sciences, social sciences, and humanities and through the more recent developments in interdisciplinary studies. The Faculty of Arts and Science is dedicated to providing a balanced education in Arts and Science through excellence in teaching, research, scholarly activity, and service to the community. It believes in an inclusionary approach to education. It offers many interdependent academic communities in an urban environment where students and faculty may pursue their shared commitment to ongoing education.

General Studies in Arts and Science
The Faculty of Arts and Science encourages all students to explore beyond the boundaries of their programmes of concentration. This is facilitated by the programme structure and graduation requirements of the undergraduate degrees (see §31.002 and 31.003).
Undergraduate degrees normally require 90 credits of course work, consisting of at least one programme of concentration (Major, at 36 to 48 credits; Specialization, at 60 credits; or Honours, at

60 or more credits). The balance of the degree requirements may be made up of one or more Minors (24 to 30 credits) or by courses selected from a broader spectrum of disciplines. Where programme structure permits, at least 24 credits are to be taken from outside the main area of concentration. Most Major programmes are relatively short, allowing maximal development of interests outside the area of concentration. Two areas of concentration can be combined in a Double Major. Even longer programmes (Specialization and Honours) allow students to diversify their studies for up to one third of their degree requirements.

Programme structures thus permit students to obtain a judicious balance between concentrated study and exploration of broader interests. Department and Faculty advisers are available to help students develop a plan of study which accommodates their personal interests and satisfies degree requirements.

Programmes of concentration and related Minors are published in the Calendar entries for each of the 26 disciplines in the Faculty (§31.010 onward). To facilitate innovative exploration outside these standard disciplines, the Faculty offers many alternatives. First, the University has established five Colleges (§31.500 onward) which foster various philosophies and methods of education on an intimate scale. Second, it has created Majors which cross disciplinary boundaries (Science and Human Affairs, Urban Studies, and Women's Studies). In addition, selected students may create their own Individually Structured Programme (§31.170) under the direction of the Faculty adviser. Finally, the Faculty offers cross-disciplinary Minors (for example, Science and Human Affairs, Urban Studies, and Women's Studies) and a number of Interdisciplinary courses (§31.170) which may be chosen as electives in any programme.

A good general education — balancing the development of expert knowledge in a narrow domain with broader academic experience — can be obtained in the Faculty of Arts and Science. The programmes outlined are best considered as models of what can be planned by imaginative students and their academic advisers.

31.002 PROGRAMMES AND ADMISSION REQUIREMENTS

General admission requirements are listed in §13.

Specific requirements for admission to the various programmes leading to the BA, BEd, and BSc degrees, and to Certificates, are set out in the first column of the following listings. They refer to the table of CEGEP pre-Arts and pre-Science profiles defined below. Students lacking one or more of these prerequisites may be admitted, but must include the designated prerequisites among the courses followed prior to entry into the second year of their undergraduate programme. In certain cases, the prerequisites must be taken in addition to the undergraduate programme.

Profile	Requirements
0.00	Diploma of Collegial Studies (DEC – Diplôme d'études collégiales)
0.72	DEC or equivalent and appropriate teaching licence.
0.80	To have a full-time teaching position with an educational institution recognized by the Ministry of Education of Québec (MEQ) and to hold a Provisional Teaching Authorization from the MEQ.
4.03	New Social Science DEC Mathematics 300 Biology 921
5.00	Natural Science DEC
6.00	*DEC intégré en sciences, lettres et arts*
10.1	Mathematics 337; or 103, 307 Biology 301 or 401 or 911 or 921 Psychology 101 or 102
10.5	To have reached in the language that will be studied a level equivalent to that of two CEGEP courses. If these courses have not been available in the CEGEP attended, the University may make up for them.
10.9	Mathematics 103, 203 Physics 101, 201, 301 Chemistry 101, 201 Biology 301
10.10	Mathematics 103, 203, 105 Physics 101, 201, 301 Chemistry 101, 201 Biology 301
10.12	Mathematics 103, 105, 203
10.13	There are no particular requirements for graduates of an anglophone CEGEP other than the DEC. Graduates of a francophone CEGEP must hold a DEC with a course in English of the 900 series or have an equivalent background in English.

10.14 There are no particular requirements for graduates of a francophone CEGEP other than the DEC. Graduates of an anglophone CEGEP must hold a DEC with a course in French of the 900 series or have an equivalent background in French.

10.15 Candidates of a francophone CEGEP must hold a DEC with a course in English of the 900 series or have an equivalent background in English. Candidates of an anglophone CEGEP must hold a DEC with a course in French of the 900 series or have an equivalent background in French.

A: Interview

G: Letter of intent

K: Submission of a portfolio of representative work

N: Placement test

P: Competency in written and oral French, to be determined by a proficiency test, the results of which may lead to the rejection of the candidate or the requirement of additional university courses.

Q: Competency in written and oral English, to be determined by a proficiency test, the results of which may lead to the rejection of the candidate or the requirement of additional university courses.

+: Two letters of reference

Programme titles refer to Honours, Specialization, Major, and Minor components where these exist. Full information about the programmes offered under each title (including combinations with programmes in other disciplines) is to be found in the section of the Calendar specified in the third column below.

BA, BSc, BEd

Profile	Programme	Calendar Section
0.00	Adult Education	31.090.1
	Animal Biology (see Biology)	
0.00	Anthropology	31.310
0.00	Anthropology and Sociology	31.310
	Applied Mathematics (see Mathematics)	
0.00G,+	Applied Social Science	31.010
10.9/5.00/6.00	Biochemistry	31.050
10.9/5.00/6.00	Biochemistry and Molecular Biology	31.050
10.9/5.00/6.00	Biology	31.030
	Botany (see Biology)	
0.00A,G,K,Q,+	Broadcast Journalism	31.070, 31.180
0.00	Canadian Studies	31.040
	Cell and Molecular Biology (see Biology)	
10.9/5.00/6.00	Chemistry	31.050
10.9/5.00/6.00	Chemistry (Analytical)	31.050
10.9/5.00/6.00	Chemistry (Bioanalytical)	31.050
0.00	Child Studies	31.090
	Classical Philology, Latin and Classical Greek (see Classics)	
0.00	Classics	31.060
0.00A,G,K,+	Communication Studies	31.070
0.00A,G,K,Q,+	Communication and Journalism	31.070, 31.180
0.00,A[Cert. only]	Community and Ethnic Studies	31.310
0.00A,+	Community Service	31.010
0.00G,K	Creative Writing (see English and Creative Writing)	31.100
0.00A	Early Childhood Education	31.090
	Ecology (see Biology)	
0.00	Economics	31.080
0.00	Education	31.090
0.80	Education (Certificate)	31.090

Profile	Programme	Calendar Section
0.00	Education: Adult Education	31.090.1
	Education (see Child Studies; Early Childhood and Elementary Education; Teaching of English as a Second Language)	
0.00	Education and Philosophy	31.004
0.00	English	31.100
0.00G,K	English: Creative Writing	31.100
0.00A,K	English: Playwrighting	31.100
0.00G,K	English and Creative Writing	31.100
0.00	English and French	31.100, 31.110
0.00	English and History	31.004
10.5	English and Modern Languages	31.004
0.00	English and Philosophy	31.004
0.00	English and Religion	31.004
0.00	English Dramatic Literature	31.100
0.00	English Language	31.100
0.00	English Literature	31.100
	Études françaises	
10.14A	Enseignement du français langue seconde aux adultes	31.110
0.00	Études françaises	31.110
0.00	Langue	31.110
10.14	Littérature	31.110
10.15	Traduction (Major)	31.110
10.9/5.00/6.00	Exercise Science	31.120
10.9/5.00/6.00	Exercise Science (Adapted Physical Activity, Athletic Therapy)	31.120
0.00A,+	Family Life Education	31.010
	French Studies/Études françaises	
10.14A	Enseignement du français langue seconde aux adultes	31.110
0.00	Langue française	31.110
10.14	Littératures de langue française	31.110
10.14 & 10.15	Littératures française et anglaise	31.110
10.15G	Traduction (Specialization)	31.110
0.00	Geography (BA) — all options	31.130
10.9/5.00/6.00	Geography (BSc) — all options	31.130
0.00	Geography (BA), Human	31.130
0.00	Geography (BA), Human Environment Relationships	31.130
0.00	Geography (BA), Physical	31.130
10.9/5.00/6.00	Geography (BSc), Environmental, Hydrology	31.130
10.9/5.00/6.00	Geography/Geology (BSc), Resource Analysis and Land Use	31.130, 31.140
10.9/5.00/6.00	Geology	31.140
10.9/5.00/6.00	Geology/Chemistry	31.140
10.9/5.00/6.00	Geology/Ecology	31.140
10.9/5.00/6.00	Geology/Geography (BSc), Resource Analysis and Land Use	31.130, 31.140
10.9/5.00/6.00	Geology/Physics	31.140
10.5/6.00	German	31.210
	Greek (Classical — see Classics)	
0.00	History	31.160
0.00	History of Québec	31.160
0.00	Southern Asia Studies	31.160
0.00	History and English	31.004
0.00	History and French	31.004
0.00	History and Philosophy	31.004
0.00	History and Religion	31.004
Appropriate	Interdisciplinary Studies — Individually Structured Programme	31.170
10.5/6.00	Italian	31.210
0.00A,G,Q	Journalism	31.180
0.00	Judaic Studies	31.270
	Latin (see Classics)	
10.1	Leisure Studies	31.185
0.00	Library Studies	31.190
0.00	Linguistics	31.210
0.00	Lonergan Interdisciplinary Studies	31.530

Profile	Programme	Calendar Section
10.12/6.00	Mathematics (BA)	31.200
10.10/5.00/6.00	Mathematics (BSc)	31.200
10.12/6.00	Mathematics (Actuarial — BA)	31.200
10.10/5.00/6.00	Mathematics (Actuarial — BSc)	31.200
10.12/6.00	Mathematics (Applied — BA)	31.200
10.10/5.00/6.00	Mathematics (Applied — BSc)	31.200
10.12/6.00	Mathematics (Minor for BA Students)	31.200
0.00	Outdoor Education	31.120
0.00	Philosophy	31.220
0.00	Philosophy and Education	31.004
0.00	Philosophy and English	31.004
0.00	Philosophy and History	31.004
0.00	Philosophy and Religion	31.004
0.00	Philosophy and Sociology	31.004
10.10/5.00/6.00	Physics	31.230
	Physics (Applied and Pure — see Physics)	
10.10/5.00/6.00	Physics (Certificate in Scientific Measurement)	31.230
10.10/5.00/6.00	Physics/Marketing	31.230
0.00	Political Philosophy	31.220
0.00	Political Science	31.240
10.1/4.03/6.00	Psychology (BA)	31.250
10.9/5.00/6.00	Psychology (BSc)	31.250
10.9/5.00/6.00	Psychology (Psychobiology Option)	31.250
0.00	Religion	31.270
	Religion — Judaic Studies (see Judaic Studies)	
0.00	Religion and English	31.004
0.00	Religion and History	31.004
0.00	Religion and Philosophy	31.004
0.00	Religion and Sociology	31.004
10.9/5.00	Resource Analysis and Land Use	31.140
0.00	Russian Studies	31.280
0.00	Science and Human Affairs	31.300
0.00	Sociology	31.310
0.00	Sociology and Philosophy	31.004
0.00	Sociology and Religion	31.004
10.5/6.00	Spanish	31.210
10.12/6.00	Statistics (BA)	31.200
10.10/5.00/6.00	Statistics (BSc)	31.200
10.13 A,G,P,Q,+	Teaching of English as a Second Language (Elementary, Secondary, and Adult options)	31.320
0.72 A,G,P,Q,+	Teaching of English as a Second Language (Certificate)	31.320
0.00	Theological Studies	31.330
0.00	Urban Studies	31.340
0.00A	Western Society and Culture	31.520
0.00	Women's Studies	31.560

Mature Student Entry

Concordia University has a tradition of concern for the education of Mature students; it has always sought to assist students of 21 and over to undertake undergraduate studies.

The primary aim of the Centre for Mature Students is to develop services to students returning to formal studies after an absence of many years. It is difficult to plunge suddenly into a very large urban University after years away from classes and studying; therefore, the Fellows and staff of the Centre hope to reach out to all Mature Entry students to offer them encouragement and guidance. The Centre has quarters on both campuses that function as a "home base" for students who want counselling or are simply in need of some social contact with their peers (see §14).

Extended Credit Programme

Students admitted to BA and BEd Extended Credit Programmes are required to complete 120 credits for the degree (i.e. 30 additional credits) and must include the following 30 credits in the 120:

30 elective credits, of which a maximum of 12 may be outside the Faculty of Arts and Science. Certain departments in the Faculty have specific requirements. Students intending to follow

programmes of concentration within these departments must include the specified components as part of their programme.

BA Leisure Studies and Therapeutic Recreation: SOCI 212; BIOL 200* or BIOL 201; PSYC 200
**Students in the Therapeutic Recreation programme must choose BIOL 200.*

BA Mathematics: 9 credits in Mathematics — 203[3], 204[3], 205[3]*
**Students not having MATH 202[3], or the equivalent, must take it in place of one of their elective courses.*

BA Psychology: 3 credits in Mathematics
3 credits in Biology
6 credits in Psychology

Students admitted to the BSc Extended Credit Programme are required to complete 120 credits for the BSc degree (i.e., 30 additional credits) and must include the following 30 credits in the 120:

6 credits in Chemistry 205[3], 206[3]
6 credits in Mathematics 203[3], 205[3]*
12 credits in Physics 204[3], 205[3], 206[3], 224[1], 225[1], 226[1]
3 credits in Biology 201[3]
3 credits in Mathematics 204[3] for students intending to enter programmes of concentration in Mathematics or Physics;** or electives for all other students

**Students not having MATH 201[3], or the equivalent, must take it in place of one of their elective courses.*
***Students not having MATH 202[3], or the equivalent, must take it in place of one of their elective courses.*

NOTE: Students in the BA, BEd or BSc Extended Credit Programme may not count towards their programmes of concentration courses taken as part of the first 30 credits.

31.003 DEGREE REQUIREMENTS

Up to and including the academic year 1973-74, degree programmes were expressed in terms of courses, with one credit being applied to a "full course" (normally, one extending over two terms) and one half-credit being applied to a "half-course" (which was normally completed in one term).

In 1974-75, in accordance with the recommendations of the Council of Universities of Québec, the credit base was modified to take into account the total activity of the student. A student preparing for the BA, BEd, or BSc degree takes a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours spread across lectures, conferences, tutorials, laboratories, studio or practice periods, tests, examinations, and personal work.

Since the CEGEP programmes are designed to give all students the opportunity to explore different fields and thus acquire a broad general basis for further study, the undergraduate programmes in the Faculty of Arts and Science require of students some degree of concentration in specific areas. Detailed statements about these programmes are made under the appropriate disciplinary headings in the sections of the Calendar that follow this general account of degree requirements. They represent four main forms of concentration: the *Minor*, the *Major*, the *Specialization*, and *Honours;* and a fifth form, the *Certificate*. The University's formal definitions of these kinds of programmes are set out in §16.2.3; for the convenience of students in Arts and Science, those definitions as they are construed in the Faculty are briefly repeated below.

The *Minor* is a programme consisting of a *minimum* of 24 credits in a single discipline and professing to give a basic introduction to the methodology and key concepts of that discipline. A Minor cannot in and by itself provide the concentration required of a candidate for a degree and is therefore always taken in combination with another programme.

The *Major* consists of a *minimum* of 36 credits taken in an approved sequence of courses. Normally within a major programme not more than 36 credits are required from a single discipline or department. In certain programmes, however, additional credits are required in cognate disciplines and departments. The Major provides a solid grounding in the academic knowledge comprehended within the field of concentration. To enter and remain in it, a student normally does not have to meet a special performance requirement; see, however, programmes in Leisure Studies §31.185, Library Studies §31.190, and Western Society and Culture §31.520.

The *Specialization* consists of a *minimum* of 60 credits, normally not more than 54 credits of which are mandated from a single discipline or department. Like an Honours programme, it provides a comprehensive education in the field of concentration, but to enter and remain in it, a student normally does not have to meet a special performance requirement (see, however, programmes in Early Childhood Education §31.090, French/English Translation §31.110, Interdisciplinary Studies: Individually Structured Programme §31.170, Leisure Studies §31.185). Students interested in subsequent "classification" by the provincial government may be advised to follow a Specialization or an Honours programme.

The *Honours* programme consists of a *minimum* of 60 credits taken in an approved sequence of courses. Normally within an Honours programme not more than 60 credits are mandated from a single discipline or department. Additional credits may be required in cognate disciplines and departments. Superior academic performance is required for admission to and continuation in the Honours programme, the precise level of such performance being determined by Senate. See §16.2.3 and *Faculty Honours Regulations* set out below for matters governing Honours programmes at Concordia. An Honours degree or equivalent, because it testifies to a student's comprehensive education in a particular field, intellectual commitment to that field, and achievement of a high level of academic performance, has traditionally been required of entrants to postgraduate programmes.

Graduation Requirements

1. A candidate for graduation must have successfully completed a programme of concentration in the form of an *Honours, Specialization*, or *Major* programme.
2. A candidate for graduation must have successfully completed at least 24 credits outside the single discipline or department from which the degree concentration has been chosen. Within every block of 30 credits taken towards the degree, a student will normally choose no more than 24 credits from any one discipline or department.
3. A candidate for graduation must have successfully completed at least 18 credits from courses in Arts and Science in every block of 30 credits taken towards the degree.
4. A candidate for the BA degree must have qualified for admission to, and successfully completed, a programme leading to that degree. Specific admission requirements, expressed as CEGEP pre-Arts profiles, are given in §31.002. Students wishing to transfer out of one degree programme into another must satisfy the admission requirements of the programme they seek to enter.
5. Students enrolled in a 90-credit degree or an Extended Credit degree Programme in the Faculty of Arts and Science may take ESL courses for degree credit, up to a maximum of six credits.
6. A candidate for the BSc degree must have qualified for admission to, and successfully completed, a programme leading to that degree. Specific admission requirements, expressed as CEGEP pre-Science profiles, are given in §31.002. Students wishing to transfer out of one degree programme into another must satisfy the admission requirements of the programme they seek to enter.
7. A candidate for the BEd degree must have qualified for admission to, and successfully completed, the programme leading to that degree. The admission and degree requirements are set out in §31.320.
8. In general, the credits obtained for any course may not be used to satisfy the requirements of more than one programme. Students first registered in certain Certificate programmes may however apply credits obtained towards the Certificate to a degree programme.
9. Those students entering the University after September 1, 1978 as *Independent students* will be permitted to apply *no more* than 30 credits obtained as an Independent student towards any Arts and Science Faculty degree programme.

Supplemental Examinations (Arts and Science)

Supplemental examinations shall be offered only where, as a condition for passing the course, it is required that a student pass the final examination regardless of its weighting; or where the final examination contributes 50% or more of the final grade.

A student failing a course which comprises entirely, or in part, a laboratory or similar practicum, may not be eligible to write a supplemental examination.

All courses which a student fails and for which there is no supplemental examination shall be graded "FNS" or "R".

A failed student (see §16.3.10 V) may not write supplemental examinations.

Honours Programmes

The Faculty of Arts and Science has programmes leading to an Honours degree in certain selected fields. To enter an Honours programme, students apply to the Departmental Honours Committee (adviser). The Departmental Honours Committee (adviser) will accept students into Honours, subject

to review by the Faculty Honours Committee. The Departmental Honours Committee (adviser) will not normally accept students until they have obtained 30 credits at this University; students requiring fewer than 30 credits to graduate will not normally be accepted. The Department will notify the Faculty Honours Committee of the acceptance. The Faculty Honours Committee will review the departmental acceptance and notify the Department, the student, and the Office of the Registrar of the acceptance. In those cases where the Faculty Committee reverses a department's acceptance of a student into Honours, the Department may appeal the Faculty Committee's ruling to the Arts and Science Faculty Council.

Honours Regulations (Faculty Regulations) see also §16.2.3

In order to qualify for an Honours degree, a student must comply with the regulations set forth below.

1. An Honours student must meet the general degree requirements, as well as the specific requirements for an Honours degree. A student must complete a minimum of 30 credits in the courses from the Honours component of the programme at this University to receive a degree with Honours. In certain cases, these 30 credits may include some specific courses for which pro-tanto credit may not be awarded.
2. To be admitted into an Honours programme, a student must have a minimum cumulative GPA of 3.00 ("B"). A student must maintain a minimum cumulative GPA of 3.00 as well as a minimum annual GPA of 3.00 within the Honours programme. The minimum acceptable grade in any course is a "C". Averages are calculated on Concordia courses only.
3. Students who are required to withdraw from the Honours programme may proceed in the corresponding Specialization or Major programme. Reinstatement in the Honours programme is possible only by appeal to the Faculty Honours Committee.
4. A student is allowed to qualify for only one Honours degree in either a single or combined Honours programme. A student may qualify for a Minor or Major programme in addition to an Honours programme. In general, the credits obtained for a particular course may be used to satisfy the requirements of only one programme.

Students may appeal their Department's determination of their status or interpretation of requirements in the Honours programme. Such appeals should be addressed to the Chair of the Faculty Honours Committee. The Faculty of Arts and Science has an Honours Committee made up as follows: three faculty members; one student member; two Student Affairs advisers (non-voting); one representative of the Office of the Registrar (non-voting); the Vice-Dean, Student Affairs who acts as Chair.

The Faculty Honours Committee receives and reviews departmental recommendations for acceptance into Honours programmes and graduation with Honours, and adjudicates disputes between students and departments concerning Honours programmes. Since the Faculty Honours Committee cannot hear appeals contesting its own judgements, students and departments who wish to appeal a decision of the Faculty Honours Committee should address this appeal to the Dean of the Faculty.

General Certificate in Arts and Science

The General Certificate in Arts and Science is intended primarily for part-time students who qualify for admission to undergraduate degree programmes, but who, at the time of registration, have not yet determined which programme would best serve their interests. In particular, it is designed to meet the needs of Mature students who are unwilling or unable to make the long-term commitment involved in a regular or extended degree programme. Students who have completed a university degree do not qualify for admission into the General Certificate in Arts and Science.

The Certificate requires successful completion of 30 credits. At least 24 of these credits must be chosen from courses offered by not more than three departments in the Faculty of Arts and Science. Credits earned in the Certificate may not be counted towards the additional credits required in extended programmes.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

The General Certificate programme in Arts and Science was first offered in the session commencing September 1978. Students who are admitted to the General Certificate in Arts and Science, and who wish to continue in a degree programme should apply for admission to their programme within the first 30 credits.

Objectives

The objectives of these regulations are to ensure that the Faculty can certify that all of its graduates have achieved an acceptable level of scholarship.

31.003.1 Academic Performance Regulations

Annual Weighted Grade Point Average (WGPA)* Requirements and Consequences
**See §16.3.10 for definition of Annual WGPA.*

Acceptable standing requires that a student obtain an Annual WGPA of at least 2.00.
NOTE: Although a "C-" grade (1.70 grade points) is designated as satisfactory in §16.3.3, a WGPA of 2.00 is required for acceptable standing.
Students in acceptable standing may continue their programmes of study, following the advice of their academic departments.

Conditional standing results when a student obtains an Annual WGPA of less than 2.00, but at least 1.50. A student is not permitted to obtain two consecutive conditional standing assessments.
Students in conditional standing may not write supplemental examinations.
Students in conditional standing will not be permitted to register for further study until their programme has been approved by the appropriate adviser in their department.
They must obtain acceptable standing at the time of their next assessment.

Failed standing results when a student obtains an Annual WGPA of less than 1.50, or conditional standing in two consecutive periods of assessment.
Failed students may not write Supplemental examinations.
Failed students are required to withdraw from their programme. Students who are in failed standing for a second time will be dismissed from the University. In subsequent years, should they wish to return to University studies, they must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.
Failed students who are not dismissed may apply for readmission through the Dean's Office of the Faculty to which they wish to be readmitted. If readmitted, they will be placed on academic probation. They must return to acceptable standing at the time of their next assessment. Other conditions will be determined at the time of readmission.

Graduation Requirements
Students must satisfy all course requirements and be in acceptable standing.
The standings of potential graduates who have attempted less than 12 credits since their last assessment are determined on the basis that these credits constitute an extension of the last assessment period.
Potential graduates who fail to meet the requirements of acceptable standing, but meet the requirements of conditional standing, will have the following options:

a) register for an additional 12 credits and, at the next assessment, meet the requirements for acceptable standing;
or
b) register for fewer than 12 additional credits.

In this case, standing will be determined on the basis that these extra credits constitute an extension of the last assessment period.
For both option a) and option b), the additional courses taken must be approved by the appropriate member of the Dean's Office, in consultation with the student's department where necessary.

Dean's Office
Dean's Office is to be understood as being the appropriate member of the Dean's Office, normally the Vice-Dean, Student Affairs, or delegate.

31.004 JOINT PROGRAMMES

Subject to approval of the Departments concerned, students may take these or other specially designed programmes by being admitted to the Individually Structured programme (see programme description and admission procedures in §31.170):

BA Joint Honours in Education and Philosophy
BA Joint Honours in English and History
BA Joint Honours in English and one of the Modern Languages
BA Joint Specialization in English and one of the Modern Languages
BA Joint Honours in English and Philosophy
BA Joint Honours in English and Religion
BA Joint Honours in French and History
BA Joint Honours in French and one of the Modern Languages
BA Joint Honours in History and Philosophy

BA Joint Honours in History and Religion
BA Joint Honours in Philosophy and Religion
BA Joint Honours in Philosophy and Sociology
BA Joint Honours in Religion and Sociology

Students wishing to have further information about these programmes should consult the Departments concerned.

31.010 APPLIED SOCIAL SCIENCE

Faculty

Chair
MARILYN TAYLOR, *Professor*

Professor Emeritus
RICHARD D. McDONALD

Professor and Graduate Programme Director
JAMES F. GAVIN

Associate Professors
SYLVIA I. CARTER
RICHARD CAWLEY
GHISLAINE GUÉRARD
RAYE KASS
BLUMA LITNER
MICHAEL MILES

Associate Professor of Applied Social Science and Psychology
DOROTHY MARKIEWICZ

Assistant Professors
VARDA MANN-FEDER
SHAHRZAD MOJAB

Location

Sir George Williams Campus
Annex F, Room: 104
(514) 848-2260

Department Objectives

The Department of Applied Social Science is an interdisciplinary and applied academic unit which generates knowledge and provides practice-based education fostering collaborative social intervention. It seeks to optimize the integration of theory and practice, and the integration of individual and systemic change processes. It strives to promote effective practitioner skill and understanding through its teaching and research. This includes the development of critical awareness of one's own behaviour and of social contextual influences and dynamics.
The academic mission of the Department serves the enhancement of individual and collective well-being by fostering respect for and inclusion of differences among persons, promoting participation in democratic processes, and developing collaborative leadership and effective social participation skills.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Specialization in Applied Social Science

NOTE: PSYC 200[6] is a prerequisite for the Psychology courses included in this programme. Students not exempted from PSYC 200[6] must enrol in this course during their first year.
The Sociology courses included in this programme also have prerequisites (e.g., SOCI 203[3] which should be taken in the students' first year).

9 APSS 240[6], 250[3]
6 PSYC 310[3] and 315[3] taken concurrently
6 APSS 331[6]
6 Chosen from APSS 420[6], 440[6], 450[6]
6 APSS 490[6]
27 Chosen from Lists A, B, C, and D. At least six credits and not more than 12 credits must be chosen from APSS courses. At least six credits must be chosen from List A and a further six credits from one other List: B, C, or D.

List A: Social Theory
PSYC 333[6]; SOCI 275[6], 300[6], 330[6]

List B: Understanding Individuals and Groups
APSS 313[6], 318[3], 353[3], 356[3], 419[3], 450[6], 460[6], 463[6]; ADED 344[3], 345[3]; PSYC 283[3], 284[3], 336[6], 379[3]; SOCI 262[3], 263[3], 276[6]

List C: Understanding Communities
APSS 361[6], 440[6]; GEOG 313[6], 331[6]; SOCI 280[6], 353[3], 354[3]; URBS 280[6]

List D: Understanding Organizations
APSS 420[6]; MANA 266[3], 340[3]; PSYC 375[6]; SOCI 329[3]

42 BA Major in Applied Social Science

NOTE: PSYC 200[6] is a prerequisite for the Psychology courses included in this programme. Students not exempted from PSYC 200[6] must enrol in this course during their first year.
The Sociology courses included in this programme also have prerequisites (e.g., SOCI 203[3]) which should be taken in the students' first year.

9 APSS 240[6], 250[3]
6 APSS 331[6]

6 Chosen from APSS 420[6], 440[6], 450[6]
3 APSS 415[3]
18 Chosen from Lists A, B, C, and D. At least six credits and not more than 12 credits must be chosen from APSS courses. At least six credits must be chosen from List A and a further six credits from one other List: B, C, or D.

List A: Social Theory
PSYC 333[6]; SOCI 275[6], 300[6], 330[6]

List B: Understanding Individuals and Groups
APSS 313[6], 318[3], 353[3], 356[3], 419[3], 450[6], 460[6], 463[6]; ADED 344[3], 345[3]; PSYC 283[3], 284[3], 336[6], 379[3]; SOCI 262[3], 263[3], 276[6]

List C: Understanding Communities
APSS 361[6], 440[6]; GEOG 313[6], 331[6]; SOCI 280[6], 353[3], 354[3]; URBS 280[6]

List D: Understanding Organizations
APSS 420[6]; MANA 266[3], 340[3]; PSYC 375[6]; SOCI 329[3]

Certificate in Community Service

The Department of Applied Social Science offers a 30-credit programme consisting of 21 credits in the Department and nine credits which complement these from other disciplines, leading to the Concordia University Certificate in Community Service. Students may transfer into the Certificate programme up to 12 credits earned in an incomplete degree or Certificate programme or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Admission Requirements

General admission requirements are listed in §13.
Students are required to complete the 0.00A,+ entrance profile to enter the Certificate.
Students should be actively involved in community service, either as staff or as volunteers or members of boards, committees, or councils of community organizations and agencies.

30 Certificate in Community Service

NOTE: APSS 240[6], PSYC 200[6], and SOCI 203[3] are prerequisites for courses included in this Certificate.

(Courses must be taken in an approved sequence and selected in consultation with the coordinator of the Certificate programme in accordance with the selected emphasis in addiction education, community intervention, gerontology, or organizational leadership.)

Stage I
9 APSS 250[3], 361[6]

Stage II
9 Chosen in consultation with the coordinator of the Certificate programme from outside APSS
6 APSS 331[6]

Stage III
6 Chosen from APSS 318[3], 419[3], 420[6], 440[6]

NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the programme, chosen in consultation with the coordinator of the Certificate programme.

Certificate in Family Life Education

The Department of Applied Social Science offers a 30-credit programme consisting of 18 credits of applied courses and 12 credits of foundation courses chosen as electives, leading to the Concordia University Certificate in Family Life Education. Students may transfer into the Certificate programme up to 12 credits earned in an incomplete degree or Certificate programme or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Admission Requirements

General admission requirements are listed in §13.
Students are required to complete the 0.00A,+ entrance profile to enter the Certificate.
Students should be actively involved in family life education through a sponsoring community agency or organization; or interested in becoming more effective family life educators.

30 Certificate in Family Life Education

NOTE: APSS 240[6], PSYC 200[6], and SOCI 203[3] are prerequisites for courses included in this Certificate.

(Courses must be taken in an approved sequence and selected in consultation with the coordinator of the Certificate programme.)

Stage I

6 APSS 250[3], 354[3]

Stage II

12 Chosen from EDUC 398[3]; PSYC 280[3], 281[3], 283[3], 284[3], 298[3]; SOCI 262[3], 263[3], 274[6], 276[6], 378[6], 398[3]; RELI 233[3], 378[3]

Stage III

12 APSS 331[6], 353[3], 455[3]

NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the programme, chosen in consultation with the coordinator of the Certificate programme.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

APSS 240 ***Interpersonal and Group Dynamics*** (6 credits)
This course is designed to foster development of understanding with respect to self, self in relation to others, and patterns of relationships in small groups. This involves skill-building in: relating and communicating with others; observation and diagnosis of relationships and group dynamics; problem-solving; decision-making; and intervention. The course also includes learning and application of interpersonal communication and group development theory. The course requires active participation, reflective assignments such as journal writing, and learning how to use theory to interpret observation and experience.
NOTE: Students who have received credit for APSS 355 and 356 may not take this course for credit.

APSS 250 ***Applied Social Science Approaches to Social Problems*** (3 credits)
Prerequisite: Enrolment in APSS programmes. This course focuses on two questions: What is a social problem? What is a social response? The exploration of these questions is field-based, supported by cases, research of the literature, and reflection on the issues there discovered. Students are introduced to the concepts and processes of social systems and social intervention. Lectures and laboratory.
NOTE: Students who have received credit for APSS 212 may not take this course for credit.

APSS 298 ***Selected Topics in Applied Social Science*** (3 credits)

APSS 299 ***Selected Topics in Applied Social Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

APSS 313 ***Adolescent Behaviour in Urban Areas*** (6 credits)
Prerequisite: APSS 240; APSS 250. A survey of adolescent values, family and group relations, social mobility, friendship patterns, and educational and vocational adjustment, focusing on understanding social behaviour in urban communities. Attention is also given to programmes attempting to enhance adolescent development and reduce social problems.
NOTE: Students who have received credit for APSS 413 may not take this course for credit.

APSS 318 ***Gerontology for the Practitioner I*** (3 credits)
Prerequisite: APSS 240. This course provides an overview of the status and problems of the elderly in our society. Through interviews, visits, readings, and lecture-discussions, the course is designed to foster an understanding of some of the problems confronting the elderly. Attention is given to the resources available for the elderly as well as to approaches to the problems of the elderly that maximize their sense of responsibility.
NOTE: Students who have received credit for APSS 418 may not take this course for credit.

APSS 331 ***Leadership in Group Development*** (6 credits)
Prerequisite: APSS 240; APSS 250. This course is designed to provide students with an opportunity to increase their effectiveness in leading small groups; to identify their leadership styles and to adapt individual styles to a variety of situations. The course focuses on: factors helping and hindering group process; communication patterns; problem-solving; handling conflicts; and dealing with personal needs of members. Special attention is given to tools for systematic observation, group diagnosis, and group self-analysis techniques. Students are required to study the development of an outside group through the year. Lectures, laboratory, and fieldwork.
NOTE: Students who have received credit for APSS 431 may not take this course for credit.

APSS 353 ***Sexuality and Human Relations*** (3 credits)
Prerequisite: APSS 240. Using a variety of small group processes, the seminar explores physical and psychosocial factors in the emergence of the sexual self. Objectives of the

seminar include helping students to increase awareness of sexual values and attitudes. Lectures and laboratory.
NOTE: Students who have received credit for APSS 453 may not take this course for credit.
NOTE: Students will receive no more than six credits from APSS 353 and HEAL 472.

APSS 354 ***Special Seminar in Family Communication*** (3 credits)
Prerequisite: APSS 240; enrolment in the Certificate in Family Life Education. A course in marriage and family living, including decision-making, interpersonal relationships, communication, male-female lifestyle, and problem-solving within a family. Handling of crisis, loneliness, death, and dying are also considered. The course studies marriage and family relationships in a way that can pertain directly to the student's own living experiences. Lectures and laboratory.
NOTE: Students who have received credit for APSS 454 may not take this course for credit.

APSS 356 ***Interviewing*** (3 credits)
Prerequisite: APSS 240; APSS 250. The course reviews different forms of interviewing, communication influences on the interviewer and interviewee, structure and design features of interviews, construction of questions, building rapport, controlling information flow, and limitations of the approach. Illustrations of interviewing are taken from the contexts of business, counselling, mass media, and research, among others. Approximately equal emphasis is devoted to theoretical discussions and practice.
NOTE: Students who have received credit for APSS 456 may not take this course for credit.

APSS 361 ***Human Services: Public Policy and Current Issues*** (6 credits)
A general course concerned with human services problems in modern society; some analysis of these problems in relation to economic and cultural patterns. A description of the functional settings in which human services are practised. A consideration of the methods used in human services, and some consideration of the links between human services and religion, law, medicine, nursing, teaching, and other professions.
NOTE: Students who have received credit for APSS 461 may not take this course for credit.

APSS 398 ***Selected Topics in Applied Social Science*** (3 credits)

APSS 399 ***Selected Topics in Applied Social Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

APSS 415 ***Personal Values and Social Problems*** (3 credits)
Prerequisite: Enrolment in the BA Major in Applied Social Science and completion of 60 credits in the degree programme. This course is designed as an integrative seminar for final-year students. It is intended to help students draw together their learning from a variety of disciplines and relate it to practical conditions of the social world. The course includes identification of personal strengths, interests, goals, and values related to social and community service.

APSS 419 ***Gerontology for the Practitioner II*** (3 credits)
Prerequisite: APSS 318. This course focuses in depth on one or two pivotal issues for the elderly in our society. In this course students interview the elderly, visit community resources for the elderly, and develop approaches to the solutions for the problems identified.

APSS 420 ***Organizational Change and Development*** (6 credits)
Prerequisite: APSS 240; APSS 250; APSS 331. This course focuses on the leader who solves problems and makes decisions in conjunction with other people in community-serving organizations. The basic objective of this course is to increase knowledge and understanding of human behaviour in the not-for-profit organizations. The course focuses on: i) theory and research, ii) understanding of the processes of leadership and decision-making, iii) behavioural skills in working with people, iv) understanding of oneself in relation to administrative responsibility. This course relies heavily on active participation of class members. This course has a fieldwork requirement.
NOTE: Students who have received credit for APSS 421 may not take this course for credit.

APSS 440 ***Community Development*** (6 credits)
Prerequisite: APSS 240; APSS 250; APSS 331. This course has students working as volunteers in a community agency engaged in outreach work or community development. Class sessions are designed for theoretical input on problems identified in students' field placement experience. Class sessions include theory presentations, games and simulations, and problem-solving. The emphasis is on discovering what a social system is by observation and participation, and finding out how to manage interventions in an appropriate fashion. Lectures and a fieldwork requirement.
NOTE: Students who have received credit for APSS 441 may not take this course for credit.

APSS 450 ***Principles and Practices of Counselling*** (6 credits)
Prerequisite: APSS 240. This course is designed to introduce students to the basic concepts of helping. Through theoretical and experiential approaches, instruction focuses on

basic concepts of relating to another person in a helping relationship and skill development in interviewing. Students are briefly introduced to various counselling theories and approaches to clarify their own theoretical position in a helping relationship. This course is not designed to equip students to become professional counsellors, but to introduce them to the field and prepare them for future study and training. The course includes skill training, observation and demonstration exercises, role play, practice and discussion sessions, theory input, and the use of films and video. This course has a fieldwork requirement.

APSS 455 ***Advanced Integrative Seminar in Family Life Education*** (3 credits)
Prerequisite: Enrolment in the Certificate in Family Life Education; must be in the final year of the programme. The purpose of this course is to coordinate the other courses required by the programme and to integrate the theory derived from the contributing disciplines within an applied social science perspective. Lectures, laboratory, and fieldwork.

APSS 460 ***Health Promotion*** (6 credits)
Prerequisite: APSS 240; permission of the Department. This course helps students to develop intervention skills and theoretical understanding in the area of health promotion. It is of particular interest to students who wish to develop career practices in lifestyle planning, health promotion, and stress management. Topics include: health and wellness; stress and illness; psychological and physical self-appraisal processes; psychosomatic processes and disorders; health-promotion interventions; behavioral self-management; issues in medical/psychological health compliance.

APSS 463 ***Adulthood: Patterns and Transitions*** (6 credits)
Prerequisite: APSS 240; APSS 250; permission of the Department. The course addresses itself to the phenomenon of adult development from early adulthood through maturity. The focus is on both the content of the life changes observed, and on the process of change from one life stage or period to another. Participants explore the patterns of change in their own lives and relate these patterns to contemporary theories of adult development. The relationship of life changes to cultural and historical features of the times, and to working in social systems as helping professionals are also examined. Thus, autobiographical accounts of class participants, and existing research evidence describing normative life changes, reactions to these, and the nature of the change process are integrated in the evaluation of relevant theory.

APSS 471 ***Special Projects Seminar*** (6 credits)
Prerequisite: Completion of 30 credits in Specialization or Major in Applied Social Science; permission of the Department. A seminar course of field projects, surveys, and research studies undertaken by each student.

APSS 472 ***Special Projects Seminar*** (6 credits)
Prerequisite: Completion of 30 credits in Specialization or Major in Applied Social Science; permission of the Department. Students who have received credit for APSS 471 may register for APSS 472 provided the subject matter is different.

APSS 487 ***Independent Study in Applied Social Science*** (3 credits)
Prerequisite: Permission of the Department. This course is intended for students who wish to continue a project initiated in another course in the Department. The instructor of that course must agree to supervise this independent study.

APSS 490 ***Approaches to Applied Social Research*** (6 credits)
Prerequisite: Enrolment in the BA Specialization in APSS and completion of 60 credits in the degree programme. This course is a project seminar which explores research approaches commonly used by social practitioners such as action research, survey-feedback studies, and programme evaluation. Each of the alternative modes of research relates directly to social and organizational change. Approaches of particular interest in this course are those which maximize involvement by people in directing their own change. The course includes a research project which utilizes an approach to applied social research of most interest to the student. Lectures and laboratory.
NOTE: Students who have received credit for APSS 400 may not take this course for credit.

APSS 498 ***Advanced Topics in Applied Social Science*** (3 credits)

APSS 499 ***Advanced Topics in Applied Social Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.030 BIOLOGY

Faculty

Chair
ROBERT M. ROY, *Professor*

Professors
PAUL J. ALBERT
DAPHNE FAIRBAIRN
RAGAI K. IBRAHIM
EDWARD J. MALY
ELAINE B. NEWMAN
ROSE SHEININ

Associate Professors
PERRY D. ANDERSON
SYMALA S. ASHTAKALA
CAROLYN BECKMAN
RICHARD T. CRONIN, s.j.
CLAIRE G. CUPPLES
KULDIP S. DHINDSA
LUC-ALAIN GIRALDEAU
JAMES GRANT
PATRICK J. GULICK
MURIEL B. HERRINGTON
NARINDER N. KAPOOR
BHINDI S. MANGAT
J. DANIEL McLAUGHLIN
SYLVIA M. RUBY
REGINALD K. STORMS
ADRIAN TSANG
PAUL WIDDEN

Assistant Professors
JACK A. KORNBLATT
LUC VARIN

Adjunct Associate Professors
HOWARD I. BROWMAN
FRANÇOIS CORMIER
DANIEL CYR
RALPH GERMINARIO
HENRY KHOURI
LARRY KLEIMAN
PETER C.K. LAU

Location

Sir George Williams Campus
Hall Building, Room: H 1260-6
(514) 848-3400

Department Objectives

The Biology Department is dedicated to teaching and research that advance understanding of life from molecules and cells to organisms, populations, and entire ecosystems. The Department's programmes inspire students with an appreciation of the rich diversity of the living world. Students acquire a comprehensive grounding in modern biology through classroom study as well as extensive hands-on training in research methodology. A variety of specialized laboratories and equipment supports both research and teaching activities.

Programmes

The Biology Department offers the following programmes: Honours in Biology, Specialization in Biology, Major in Biology, Minor in Biology, Honours in Cell and Molecular Biology, Specialization in Cell and Molecular Biology, Honours in Ecology, and Specialization in Ecology. Students planning a career or graduate studies in the biological sciences are normally expected to follow the appropriate Honours or Specialization programme. The Major programme is designed for students who wish to concentrate their studies in biology but at the same time wish to pursue general education in other disciplines. The Major programme can be combined with a Major in another department.
Students registered in the Honours, Specialization, or Major in Biology may select Biology electives in various subject areas in order to obtain a broad overview of the discipline. However, it is possible for students to pursue in-depth studies in specific areas such as animal biology, plant biology, or microbiology and biotechnology.
The Minor programme can only be taken by students registered in another degree programme and provides an opportunity to gain a basic exposure to the main sub-disciplines of Biology or to pursue one such area in some depth.
Students are strongly encouraged to take advantage of academic counselling services available in the Biology Department in order to select the programme and courses that best meet their needs.
Students may transfer among programmes after the first year of study since the core courses in all programmes are quite similar.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
Students must apply to the departmental Honours adviser for formal admission to Honours programmes. The application is usually made after completion of the first-year courses.

72 BSc Honours in Biology

33 CHEM 221[3]*, 222[3]*, 271[3]; BIOL 225[3], 226[3], 227[3], 261[3], 266[3], 367[3], 490[6]

3 Chosen from BIOL 322[3]****; CHEM 212[3]

3 Chosen from BIOL 346[3], 349[3], 364[3], 383[3], 384[3]

33 Additional Biology credits*; a minimum of 12 credits in 300-level Biology courses and nine credits in 400-level Biology courses must be completed.

72 BSc Honours in Cell and Molecular Biology

48 CHEM 212[3], 221[3]*, 222[3]*, 271[3], 375[3], 477[3]; BIOL 225[3], 226[3], 261[3], 266[3], 364[3], 367[3], 368[3], 466[3], 490[6]

9 300-level Biology credits

15 400-level Biology and Chemistry elective credits including a minimum of:
9 Cell and Molecular Biology credits selected from: BIOL 420[3], 441[3], 461[3], 462[3], 464[3], 465[3], 468[3], 469[3], 470[3], 498[3]/499[6]***
3 Biochemistry credits selected from: CHEM 471[3], 472[3], 473[3], 474[3], 478[3], 481[3], 498[3]/499[6]***

72 BSc Honours in Ecology

36 CHEM 221[3]*, 222[3]*, 271[3]; BIOL 225[3], 226[3], 227[3], 261[3], 266[3], 322[3], 367[3], 490[6]

3 Chosen from BIOL 346[3], 349[3], 364[3], 383[3], 384[3]

33 Biology elective credits in Ecology and related fields; a minimum of 21 credits in 300- and 400-level courses in the area of concentration selected from the following: BIOL 321[3], 352[3], 355[3], 356[3], 358[3], 359[3], 381[3], 398[3]/399[6]**, 431[3], 452[3], 453[3], 454[3], 456[3], 482[3], 498[3]/499[6]***

60 BSc Specialization in Biology

27 CHEM 221[3]*, 222[3]*, 271[3]; BIOL 225[3], 226[3], 227[3], 261[3], 266[3], 367[3]

3 Chosen from BIOL 322[3]****; CHEM 212[3]

3 Chosen from BIOL 346[3], 349[3], 364[3], 383[3], 384[3]

27 Additional Biology credits*; a minimum of 12 credits in 300-level Biology courses and six credits in 400-level Biology courses must be completed.

66 BSc Specialization in Cell and Molecular Biology

42 CHEM 212[3], 221[3]*, 222[3]*, 271[3], 375[3], 477[3]; BIOL 225[3], 226[3], 261[3], 266[3], 364[3], 367[3], 368[3], 466[3]

9 300-level Biology elective credits

15 400-level Biology and Chemistry elective credits including a minimum of:
9 Cell and Molecular Biology credits selected from: BIOL 420[3], 441[3], 461[3], 462[3], 464[3], 465[3], 468[3], 469[3], 470[3], 498[3]/499[6]***
3 Biochemistry credits selected from: CHEM 471[3], 472[3], 473[3], 474[3], 478[3], 481[3], 498[3]/499[6]***

60 BSc Specialization in Ecology

30 CHEM 221[3]*, 222[3]*, 271[3]; BIOL 225[3], 226[3], 227[3], 261[3], 266[3], 322[3], 367[3]

3 Chosen from BIOL 346[3], 349[3], 364[3], 383[3], 384[3]

27 Biology elective credits in Ecology and related fields; a minimum of 18 credits in 300- and 400-level courses in the area of concentration selected from the following: BIOL 321[3], 352[3], 355[3], 356[3], 358[3], 359[3], 381[3], 398[3]/399[6]**, 431[3], 452[3], 453[3], 454[3], 456[3], 482[3], 498[3]/499[6]***

45 BSc Major in Biology

27 CHEM 221[3]*, 222[3]*, 271[3]; BIOL 225[3], 226[3], 227[3], 261[3], 266[3], 367[3]

3 Chosen from BIOL 322[3]****; CHEM 212[3]

3 Chosen from BIOL 346[3], 349[3], 364[3], 383[3], 384[3]

12 Additional Biology credits*; a minimum of nine credits in 300- and 400-level Biology courses must be completed.

24 Minor in Biology

12 Chosen from BIOL 225[3], 226[3], 227[3], 261[3], 266[3]

12 Biology elective credits

78 BSc Specialization in Geology-Ecology
See §31.140, Geology

**Students entering the programme with CEGEP Organic Chemistry must replace these credits with Biology electives credits.*
***Intermediate Topics in Biology (BIOL 398/399) and Advanced Topics in Biology (BIOL 498/499) may be taken as elective courses where the special topic is appropriate.*
****Advanced Topics in Biology (BIOL 498/499) and Advanced Topics in Chemistry (CHEM 498/499) may be taken as elective courses where the special topic is appropriate.*
*****See §200.7.*

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

BIOL 200 ***Fundamentals of Human Biology*** (6 credits)

A series of lectures, demonstrations, and seminars to provide non-biologists with a general survey of the fundamental principles of life, with special emphasis on the structures and functions of human beings. Lectures only.
NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credit. Students who have completed

CEGEP Biology 921/931 may not take this course for credit.

BIOL 201 ***Introductory Biology*** (3 credits)
Fundamentals of plant and animal biology: basic physics and chemistry of life; cell and tissue structures and functions; anatomy and physiology of human systems; survey of plant and animal taxonomy, ecology, heredity, and evolution. Lectures and laboratory.
NOTE: Students with CEGEP Biology 301 or equivalent may not take this course for credit. Students entering BIOL programmes without CEGEP Biology 301 or equivalent must take this course, but not for programme credit.

BIOL 203 ***Fundamental Nutrition*** (3 credits)
This course deals with food composition (carbohydrates, lipids, proteins, vitamins, and minerals), its absorption and utilization, energy balance, special diets, and food technology. Lectures only.
NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credit.

BIOL 206 ***Elementary Genetics*** (3 credits)
A survey of classical and contemporary developments in the study of heredity, with particular attention to human examples. This course is open to the general student body. Lectures only.
NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credit.

BIOL 207 ***Micro-Organisms and Humanity*** (3 credits)
A course designed for students registered in a programme other than one leading to the BSc degree. It considers the role of micro-organisms in plant and animal diseases, food spoilage, cellulose degradation, and water pollution, as well as their ecological, industrial, and pharmacological importance. Lectures only.
NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credit.

BIOL 208 ***Environmental Biology*** (3 credits)
This course examines the principles and concepts of ecosystems, the interaction of organisms and their environment. Energy flow and nutrient cycling in ecosystems, population dynamics, and community organization. Lectures only.
NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credit.

BIOL 210 ***Genetics and Human Welfare*** (3 credits)
A course on the principles of heredity as understood by modern biology. It deals also with the application of genetic principles to organisms, including humans. The biological basis of social problems is dealt with at some length. Organic evolution and its implications for human life and welfare are considered. Lectures only.
NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credit; may not be taken for credit with BIOL 206.
NOTE: Students who have received credit for BIOL 205 may not take this course for credit.

BIOL 225 ***Biology of Organisms I*** (3 credits)
Prerequisite: CEGEP Biology 301 or BIOL 201.
An introduction to plant and animal form and function is presented. This course provides an overview of basic physiological and morphological aspects of plants and animals that allow survival and reproduction. Topics in animal biology include animal architecture, internal fluids, homeostasis, digestion and nutrition, nervous and chemical coordination; topics in plant biology include plant organization, photosynthesis, respiration, water relations, and growth regulation. Reproduction and development of both plants and animals are introduced. Lectures only.
NOTE: Students who have received credit for BIOL 230 and 240, or BIOL 298D may not take this course for credit.

BIOL 226 ***Biology of Organisms II*** (3 credits)
Prerequisite: CEGEP Biology 301 or BIOL 201.
This course introduces the evolution, biodiversity, and ecology of organisms. The origin and diversity of life, from prokaryotes, through simple eukaryotes to multi-cellular organisms are introduced. Natural selection, speciation, and phylogeny, stressing evolutionary relationships in conjunction with changing conditions on earth, are presented. The course introduces major concepts in ecology: the physical and chemical environment, population structure, life histories, species interactions, communities, and ecosystems. Lectures only.
NOTE: Students who have received credit for BIOL 250 and 270, or BIOL 298E may not take this course for credit.

BIOL 227 ***Laboratory Studies of Organisms*** (3 credits)
Prerequisite: BIOL 225 or 226, previously or concurrently. Laboratory exercises are designed to acquaint students with biodiversity and to introduce methodologies common to studies of organisms and populations. This course includes field trips, dissections, use of taxonomic keys, and basic exercises in physiological function. Use of the microscope, variability within populations, basic techniques in microbiology, and elementary population dynamics are presented. Tutorials include videotapes of plant and animal diversity, history, and behaviour. Laboratory and

tutorial.
NOTE: Students who have received credit for BIOL 230, 240, and 270 may not take this course for credit.

BIOL 261 ***Molecular and General Genetics*** (3 credits)
Prerequisite: CEGEP Biology 301 or BIOL 201; CHEM 221 previously or concurrently. Basic genetic principles, including mechanisms of meiosis and mitosis, Mendelian genetics, recombination, gene mapping, and chromosome rearrangements; an introduction to molecular genetics, including nucleic acid structure and biosynthesis transcription and translation; the course also includes an introduction to recombinant DNA technology and to concepts of population genetics. Lectures and tutorials.

BIOL 266 ***Cell Biology*** (3 credits)
Prerequisite: BIOL 261; CHEM 271 previously or concurrently. Structure and functions of the cell and its organelles: cytoskeleton, chromosomes, cell cycle and cell division, organelle biogenesis, cell differentiation, including the immune system and cell communication. Lectures only.
NOTE: Students who have received credit for BIOL 365 or this topic under a BIOL 298 number may not take this course for credit.

BIOL 298 ***Selected Topics in Biology*** (3 credits)

BIOL 299 ***Selected Topics in Biology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

BIOL 320 ***History of Biology*** (3 credits)
Prerequisite: Twelve (12) credits from the Department of Biology. The lecture material is oriented towards the beginnings of formal biology in relation to the state of knowledge at the time, and the development of these ideas up to the beginning of the present century. Emphasis is on broad principles rather than on encyclopedic or biographical notes. Much illustrative or detailed information is provided by the class, since each student must present a seminar on a topic chosen from the history of biology. Lectures only.

BIOL 321 ***Evolution*** (3 credits)
Prerequisite: Any 12 credits from the Department of Biology. This course examines the concepts leading from Darwin's theory to a modern synthesis of evolution. Lectures only.

BIOL 322 ***Biostatistics I*** (3 credits)
Prerequisite: Twelve (12) BIOL credits in a Biology Major, Honours, or Specialization programme. Statistical methods for the biological sciences; sampling; experimental design; data description; elementary probability; binomial, Poisson and Normal distributions; statistical inference; hypothesis testing; chi-square; analysis of variance; correlation; regression; covariance analysis; and analogous non-parametric techniques. Lectures and laboratory. *NOTE See §200.7*

BIOL 323 ***Biology of Aging*** (3 credits)
Prerequisite: BIOL 225, 226, 261. Aging as a biological process is examined at physiological, evolutionary, genetic, cellular, and molecular levels. Current theories of aging are examined: these include the rate-of-living theory, the error-catastrophe theory, the autoimmune theory, the cross-linkage theory, and the somatic-mutation theory. Studies on aging in protozoans, plants, animals, and cells in culture are evaluated in relation to these theories. Lectures only.

BIOL 331 ***Comparative Vertebrate Anatomy*** (6 credits)
Prerequisite: BIOL 225, 226, 227 previously or concurrently. A comprehensive study of the development and structure of the systems of a representative series of vertebrates from a comparative and evolutionary point of view, with some emphasis on the mammals. In the laboratory, representatives of the principal classes of vertebrates are dissected. Lectures and laboratory.

BIOL 332 ***Parasitology*** (3 credits)
Prerequisite: BIOL 225, 226, 227. A survey of the parasitic groups of invertebrates, with special reference to human parasites. Lectures and laboratory.
NOTE: This course may not be taken for credit with BIOL 339.

BIOL 334 ***Vertebrate Embryology*** (3 credits)
Prerequisite: BIOL 225, 226, 227 previously or concurrently. The fundamental processes of growth and development in vertebrates are examined. Morphogenetic events in selected vertebrate species are compared by laboratory study. Topics covered include reproduction, gametogenesis, fertilization, cleavage patterns, gastrulation, organogenesis, metamorphosis, regeneration, and extra-embryonic membranes. Lectures and laboratory.

BIOL 335 ***Histology I*** (3 credits)
Prerequisite: BIOL 225. A comparative study of the microscopic characteristics of cells, tissues, and organs of vertebrates. Lectures and laboratory.

BIOL 336 ***Histology II*** (3 credits)
Prerequisite: BIOL 335. An advanced comparative study of the vertebrate organ systems at the ultrastructural and histological level. Lectures and laboratory.

BIOL 337 ***Invertebrate Zoology I*** (3 credits)
Prerequisite: BIOL 225, 226, 227. The Protozoa, acoelomate and pseudo-coelomate invertebrates: a detailed survey of non-coelomate invertebrates which deals in depth with the Protozoa, Porifera, Cnidaria, Platyhelminthes, Nematoda, Acanthocephala, and Rotifera. Emphasis in lectures is placed on phylogeny, physiology, functional morphology, adaptations to specific environments, and reproduction. Close attention is paid to evolutionary trends within and between phylogenetic groups. Both origin of the Metazoa from single-celled ancestors and the role of the lower Metazoa in the evolution of higher animals are examined. Laboratory work stresses morphology of both preserved and living material and, where possible, live specimens are used to demonstrate behaviour. Lectures and laboratory.
NOTE: Students who have received credit for BIOL 234 may not take this course for credit.

BIOL 338 ***Invertebrate Zoology II*** (3 credits)
Prerequisite: BIOL 337. The coelomate invertebrates: a detailed examination of the major coelomate invertebrate phyla including the annelids, molluscs, arthropods (excluding insects), echinoderms and, if time permits, minor coelomate phyla. Lectures stress functional morphology, physiology, and reproduction. Emphasis in the laboratory is on dissection of a selected representative from each group and a detailed examination of characteristics of a range of other representatives of each group. Where possible, living specimens are used to demonstrate behaviour. Lectures and laboratory.
NOTE: Students who have received credit for BIOL 235 may not take this course for credit.

BIOL 344 ***Biology of Algae*** (3 credits)
Prerequisite: BIOL 225, 226, 227 previously or concurrently. Taxonomy, physiology, and ecology of algae, with special consideration of their involvement in water pollution, sewage treatment, primary production, and their utilization in industry. Lectures and laboratory.
NOTE: Students who have received credit for BIOL 246 may not take this course for credit.

BIOL 346 ***Physiology of Plant Development*** (3 credits)
Prerequisite: BIOL 225, 226, 227 previously or concurrently. Physiological and biochemical aspects of plant growth and development. Plant responses to growth regulators, their mode of action and their use in plant tissue culture. The role of light and temperature in seed germination, dormancy, and flowering. Lectures and laboratory.

BIOL 349 ***Plant Nutrition and Metabolism*** (3 credits)
Prerequisite: BIOL 225, 226, 227 previously or concurrently. A study of the physiological processes of higher plants relating to water relations, mineral nutrition, photosynthesis, carbohydrate, and nitrogen metabolism. These processes are discussed in relation to the environmental factors which govern them. Lectures and laboratory.

BIOL 352 ***Plant Field Ecology*** (3 credits)
Prerequisite: BIOL 225, 226, 227, 322. This course is normally offered for a two-week period during August at the Lacolle Centre. It involves identification of local plant species, methods of sampling of communities, and examination of the pattern of plant communities in the area. Handling of data on populations and communities is discussed, as well as statistical analysis of population and community data. A mixture of formal lectures, organized field studies, and informal discussion. Students are required to hand in a written report after the course has ended.

BIOL 355 ***Fundamentals of Limnology*** (3 credits)
Prerequisite: BIOL 225, 226. An introduction to the study of inland waters ecosystems with major emphases on geographical, physical, and chemical characteristics that govern lake productivity. Topics include: the origin of lake basins, lake morphology and morphometry, hydromechanics, the optical and thermal properties of lakes, dissolved chemicals. Questions concerning water pollution are studied. Lectures only.

BIOL 356 ***Microbial Ecology*** (3 credits)
Prerequisite: BIOL 225, 226, 227. The properties of microbial habitats, structure and dynamics of microbial communities, and their role in the decomposition processes. Particular stress is placed on the interactions between microbes and higher organisms in terrestrial ecosystems that mediate the cycling of nutrients between biotic and abiotic parts of the system. Lectures and laboratory.

BIOL 358 ***Introduction to Animal Behaviour*** (3 credits)
Prerequisite: BIOL 226. This course focuses primarily, although not exclusively, on the proximate causation of behaviour. Topics include development, learning, genetics, hormonal control of behaviour, motivation, cyclical changes in behaviour as well as sensory processing, orientation, and perception. The course is geared to provide an ecological perspective on animal behaviour. Lectures and project.

BIOL 359 ***Evolutionary Ecology*** (3 credits)
Prerequisite: BIOL 225, 226, 261. This course covers current topics in evolutionary ecology. The aim of the course is to provide students with the knowledge and ability to critically evaluate and test evolutionary hypotheses in

ecology and behaviour. Topics covered may include mechanisms of evolution, natural selection, the unit of evolution, and the adaptive significance and evolution of such ecologically relevant traits as body size, sex, sex ratio, and senescence. Lectures only.

BIOL 363 ***Cytogenetics*** (3 credits)
Prerequisite: BIOL 266. A detailed study of eukaryotic chromosomes, their fine structures and behaviour. Mechanisms of genetic exchange, gene amplication, gene mapping, gene targeting, and oncogene action are discussed. Somatic cell genetics and the human genome project are reviewed. Polytene chromosomes, polyploid adaptations, and karyotype analysis in the study of evolution are considered. Lectures only.

BIOL 364 ***Cell Physiology*** (3 credits)
Prerequisite: BIOL 266. A survey of the mechanisms and physical processes involved in the functions of single cells and organelles, especially membrane-mediated functions: structures and properties of membranes, transport, signal transduction, motility, energy transduction. Lectures only.

BIOL 366 ***Mechanisms of Development*** (3 credits)
Prerequisite: BIOL 225, 226, 227, 261. This course deals with the mechanisms of cellular interaction and genetic control which govern animal development and cell differentiation. This includes how cell movement and cell recognition take place, how the genome is restricted in differentiation, how cytoplasmic signals influence differentiation, how gradients affect development, how genes control segmentation, and how oncogenes, growth factors, and hormones influence development. The role of genetic engineering in the understanding of developmental processes is discussed. Lectures only.
NOTE: Students who have received credit for BIOL 463 may not take this course for credit.

BIOL 367 ***Molecular Biology*** (3 credits)
Prerequisite: BIOL 261; CHEM 271. DNA structure, recombination, gene structure, gene expression, and its regulation. The experimental evidence that supports these concepts is also discussed. Lectures and tutorials.
NOTE: Students who have received credit for this topic under a BIOL 398 number may not take this course for credit.

BIOL 368 ***Genetics and Cell Biology Laboratory*** (3 credits)
Prerequisite: BIOL 364 previously or concurrently; CHEM 212 or 217. Introduction to the basic laboratory techniques of genetics, molecular biology, cell biology. Experiments include identification and characterization of bacterial mutants using recombinant DNA techniques, subcellular fractionation of eukaryotic cells, physiological studies on cell-membrane function, and experiments on both photosynthesis and mitochondrial electron transport. Laboratory and tutorials.

BIOL 370 ***Microbiology*** (3 credits)
Prerequisite: BIOL 226, 261; CHEM 271. This course provides an in-depth study of the structure and function of microbes. It emphasizes the genetic and biochemical characteristics of microbes which distinguish them from plants and animals. Consideration is also given to the impact of microbes on the global environment and on the quality of human life. Lectures and laboratory.

BIOL 380 ***Nutrition*** (3 credits)
Prerequisite: CHEM 221, 222; CHEM 271 recommended. The concept of a balanced diet is studied in relation to caloric content and to protein, lipid, carbohydrate, vitamin, and mineral requirements. The consequences of dietary deficiencies are examined. Special topics such as dieting, organic foods, megavitamins, food additives, and toxins are discussed. Lectures only.

BIOL 381 ***Biology of Pollutants*** (3 credits)
Prerequisite: BIOL 225, 226. The purpose of this course is to study the impact of pollution on ecosystems. The major classes of pollutants are considered in relation to their nature, origin, and distribution, and particularly their mode of action on individual organisms and ecosystems. Air, water, and soil are examined with their respective pollutants and a major emphasis is given to quantitative assessments of various agents and their effects. The course also includes theoretical and practical aspects of bioassays, and an overview of case studies and of control measures. Lectures only.

BIOL 383 ***Animal Physiology I*** (3 credits)
Prerequisite: BIOL 225, 226, 227; CHEM 271. A study of basic cellular and physiological mechanisms in vertebrates. Topics discussed include regulation of animal internal environment, neuromuscular physiology, sensory mechanisms, and control of body movements. Lectures and laboratory.
NOTE: Students who have received credit for BIOL 333 may not take this course for credit.

BIOL 384 ***Animal Physiology II*** (3 credits)
Prerequisite: BIOL 383. This course is a continuation of BIOL 383 and includes the study of mechanisms by which activities of major organ systems are coordinated and regulated in vertebrates, especially humans. Topics covered include blood, cardiovascular systems, respiration, water-electrolyte regulation, digestion, and metabolism. Lectures and laboratory.

BIOL 385 ***Entomology I*** (3 credits)
Prerequisite: BIOL 225, 226, 227 previously or concurrently. This course introduces the student to the variety and complexity of insect life. Basic

classification is followed by a more detailed study of morphology and anatomy, together with some physiological considerations. Other topics such as adaptations for aquatic life and social behaviour are discussed. Laboratories begin with a field trip, the object of which is to observe and collect various insect species. The rest of the laboratory sessions complement the lectures. *Students are advised to begin an insect collection during the summer months preceding the course.* Lectures and laboratory.
NOTE: Students who have received credit for BIOL 232 may not take this course for credit.

BIOL 386 ***Entomology II*** (3 credits)
Prerequisite: BIOL 385. This course presents an in-depth study of insect behaviour. Topics include sensory physiology, insects and plants, light and sound production, population dynamics, and insect ecology. This course emphasizes the relationship between the structure and function of various insect parts. Lectures and seminars.
NOTE: Students who have received credit for BIOL 233 may not take this course for credit.

BIOL 398 ***Intermediate Topics in Biology*** (3 credits)

BIOL 399 ***Intermediate Topics in Biology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

BIOL 420 ***Radiation Biology and Radiotracer Methodology*** (3 credits)
Prerequisite: BIOL 364, 367. A survey of the elements of radiation physics, with emphasis on the properties of ionizing radiation and its interaction with matter, including dosimetry and methods of radiation counting. The biological effects of radiation at the macromolecular, cellular, and organismal level are considered. Lectures and laboratory.

BIOL 431 ***Biology of Fishes*** (3 credits)
Prerequisite: BIOL 225, 226, 227. A general survey of the biology of fishes with emphasis placed on their unique adaptations as aquatic organisms. Lecture topics include an introduction to systematics and evolution, anatomy, physiology, behaviour, and ecology. Laboratory exercises include two one-day field trips to sample local fish communities in streams, and keying and identifying fishes in the Concordia fish collection. Lectures and laboratory.

BIOL 432 ***Comparative and Environmental Physiology*** (3 credits)
Prerequisite: BIOL 383, 384. The primary theme of this course is the physiological interrelationships between animals and their environments. A comparative study of selected physiological processes in diverse phyla, dealing with behavioural and physiological adaptations in animals. Lectures and seminars.

BIOL 441 ***Plant Biochemistry*** (3 credits)
Prerequisite: CHEM 271. Biochemical study of the natural constituents and secondary metabolites unique to plants. Their biosynthesis, biotransformations, and functions in plants, as well as their economic and pharmacologic importance are stressed. Lectures only.

BIOL 442 ***Perspectives in Plant Tissue Culture and Plant Biotechnology*** (3 credits)
Prerequisite: BIOL 346. This course looks at plant-growth regulators, nutritional requirements, and other factors necessary for in-vitro culturing of plant cells and tissues. The course also discusses methods available for nuclear transfers and the propagation of transformed plants. Lectures only.
NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 452 ***Ecological Genetics*** (3 credits)
Prerequisite: BIOL 322, 359. A course emphasizing the interface between ecology, population genetics, and evolution; the study of genetic variation in natural populations and its relevance to evolutionary processes. Topics include: measuring genetic diversity in natural populations; patterns of diversity; selection; phenotype vs. genotype in evolution; neutral variation, genetic load; genetic structure; the species concept; the unit of evolution; Neo-Darwinism and the modern synthesis. Lectures only.

BIOL 453 ***Behavioural Ecology and Sociobiology*** (3 credits)
Prerequisite: BIOL 358. This course is meant to allow students who already have a basic knowledge of animal behaviour to integrate the phenomenon of behaviour into ecological and evolutionary perspectives. The lecture topics include foraging theory, both social and non-social; habitat-distribution theory; sexual selection resulting from mate choice and intra-sexual competition; and evolution of social systems in both vertebrates and invertebrates. The evolution of social systems is studied from the point of view of mating systems and advantages of gregarious behaviour. Lectures only.

BIOL 454 ***Population Ecology*** (3 credits)
Prerequisite: Six Ecology credits from BIOL 352, 355, 356, 358, 359, 431, 453; or permission of the Department. A theoretical approach to ecological problems. Evolutionary aspects of ecological problems, population dynamics, species diversity, stability of ecosystems, regulation of population size, competition, and predation. Lectures only.

BIOL 456 ***Current Advances in Ecological Research*** (3 credits)
Prerequisite: BIOL 322; a minimum of three

credits from BIOL 352, 355, 356, 357, 358, 359; or permission of the Department. This course covers current research in ecology, including evolutionary, population, behavioural, conservation, and systems ecology. Through oral presentations and written critiques of papers from current ecological journals, students learn to evaluate critically both the strengths and weaknesses of current research hypotheses and methodologies. Papers for discussion are selected in consultation with the instructor, and students are evaluated on the basis of oral presentations, written critiques, and participation in class discussions. Lectures only.

BIOL 460 ***Molecular Genetics*** (3 credits)
Prerequisite: BIOL 261 or 360; CHEM 271 previously or concurrently; or permission of the Department. Basic microbial and molecular genetics, including isolation and characterization of mutants, methods of mapping mutants, transposons, episomes, and recombinant DNA techniques. Lectures and conferences.

BIOL 461 ***Advanced Genetics*** (3 credits)
Prerequisite: BIOL 367. Directed readings and seminars in classical and contemporary genetics designed to expose the student to research literature and problems. Students probe in greater depth areas of particular interest in order to develop a critical sense and deepen an understanding of past and current work in this field. Seminars only.

BIOL 462 ***Immunology*** (3 credits)
Prerequisite: BIOL 364. A course in modern immunology stressing the following areas of study: the structure and properties of antigens and antibodies; the nature of the immune response; cellular-antibody synthesis; genetic aspects of antibody synthesis; theories relating antibody specificity to genetic potential. Lectures and conferences.

BIOL 464 ***Advanced Cell Physiology*** (3 credits)
Prerequisite: BIOL 364. Lectures and seminars dealing with selected topics in cell physiology, emphasizing a molecular experimental approach. Lectures only.

BIOL 465 ***Biological Regulatory Mechanisms*** (3 credits)
Prerequisite: BIOL 261; CHEM 271; or permission of the Department. The molecular basis of the control of metabolic pathways, with an emphasis on procaryote systems. The course concentrates on the analysis of the rationale of experimentation used to elucidate these regulatory mechanisms. Lectures and conferences.

BIOL 466 ***Advanced Laboratory in Molecular Biology*** (3 credits)
Prerequisite: BIOL 368. Theory and practice of modern experimental procedures of molecular biology, including use of restriction enzymes, gene cloning, hybridizations, DNA sequencing, site-directed mutagenesis, and the use of bacteria and phage in biotechnology. Laboratory and tutorials.
NOTE: Students who have received credit for CHEM 479 may not take this course for credit.

BIOL 468 ***Gene Structure*** (3 credits)
Prerequisite: BIOL 367. This course deals with gene regulation in eukaryotes. Topics covered include transcription, transcript processing, translation, and post-translational processes. Lectures only.
NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 469 ***DNA Repair*** (3 credits)
Prerequisite: BIOL 367. This course deals with the chemical alterations arising spontaneously in DNA during semi-conservative replication and as a result of exposure to ionizing radiation, ultraviolet radiation, and genotoxic chemicals. The repair of DNA damage by various enzymatic processes in both prokaryotic and eukaryotic cells is discussed. Lectures only.
NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 470 ***Microbial Physiology*** (3 credits)
Prerequisite: BIOL 225, 226; CHEM 271. Comparative biochemistry of procaryotes — a study of the biochemical activities underlying the life of micro-organisms. A description of the diverse biochemical adaptations used by micro-organisms to obtain energy and building materials from their various environments. Lectures and conferences.

BIOL 490 ***Independent Study*** (6 credits)
Prerequisite: Sixty (60) credits in an Honours or Specialization programme in Biology, and permission of the Department. In this course, the student undertakes a special research project selected in consultation with, and conducted under, the supervision of a faculty member of the Department. The project is intended to develop the student's knowledge of standard scientific procedures, including methods of researching scientific literature, the planning and execution of experimental and analytical procedures, the writing of a formal report, and the presentation of a seminar on the project.
NOTE: Students may register in September, January, or June for this course, but work must continue over two consecutive semesters.

BIOL 498 ***Advanced Topics in Biology*** (3 credits)

BIOL 499 ***Advanced Topics in Biology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Course Guide/Undergraduate Class Schedule.

31.040 CANADIAN STUDIES

Programme Objectives

The Canadian Studies programme seeks to give students a better understanding of the diverse origins and multi-faceted character of Canada. It provides the opportunity to obtain a liberal arts education given direction and depth by a focus on Canada. See separate departmental entries for details on courses in the programme.

Programmes

Students are responsible for satisfying their particular degree requirements. The superscript indicates credit value.

60 BA Specialization in Canadian Studies*

6 CDNS 220[6]
6 ENGL 290[6]; or ENGL 291[3] and 292[3]
6 French Language, at a level to be determined in consultation with the Département d'études françaises
6 HIST 203[3] and 205[3]
6 CDNS 421[6]
30 Elective credits in related Canadian content courses, chosen in consultation with the coordinator, from Anthropology, Art History, Communication Studies, Economics, Education, English, Études françaises, Geography, History, Interdisciplinary Studies, Journalism, Political Science, Religion, Sociology, and World Music.

42 BA Major in Canadian Studies*

6 CDNS 220[6]
6 ENGL 290[6]; or ENGL 291[3] and 292[3]
6 French Language, at a level to be determined in consultation with the Département d'études françaises
6 HIST 203[3] and 205[3]
6 CDNS 421[6]
12 Elective credits in related Canadian content courses, chosen in consultation with the coordinator, from Anthropology, Art History, Communication Studies, Economics, Education, English, Études françaises, Geography, History, Interdisciplinary Studies, Journalism, Political Science, Religion, Sociology, and World Music.

30 Minor in Canadian Studies*

6 CDNS 220[6]
6 ENGL 290[6]; or ENGL 291[3] and 292[3]
6 French Language, at a level to be determined in consultation with the Département d'études françaises
6 HIST 203[3] and 205[3]
6 CDNS 421[6]

**Admission suspended for 1996-97.*

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

CDNS 220 ***Introduction to Canadian Studies*** (6 credits)
Prerequisite: Canadian Studies Major, or permission of the coordinator.

CDNS 298 ***Selected Topics in Canadian Studies*** (3 credits)

CDNS 299 ***Selected Topics in Canadian Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

CDNS 398 ***Selected Topics in Canadian Studies*** (3 credits)

CDNS 399 ***Selected Topics in Canadian Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

CDNS 421 ***Seminar in Canadian Studies*** (6 credits)
Prerequisite: CDNS 220, or permission of the coordinator.

CDNS 498 ***Advanced Topics in Canadian Studies*** (3 credits)

CDNS 499 ***Advanced Topics in Canadian Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.050 CHEMISTRY AND BIOCHEMISTRY

Faculty

Chair
THOMAS J. ADLEY, *Associate Professor*

Professor Emeritus
MARK DOUGHTY

Professors
PETER H. BIRD
LAWRENCE D. COLEBROOK
ANN ENGLISH
MARY JUDITH KORNBLATT
NICK SERPONE
OSWALD S. TEE

Associate Professors
MARY BALDWIN
JOHN A. CAPOBIANCO
GEORGE DENES
ZACHARIAS HAMLET
MARCUS F. LAWRENCE
RAYMOND LE VAN MAO
SUSAN R. MIKKELSEN
ROBERT H. PALLEN
JUSTIN B. POWLOWSKI
ROBIN T.B. RYE
RONALD A. WESTBURY
RAYMOND H. ZIENIUS

Assistant Professors
PETER BANKS
WENDY A. FINDLAY
DAVID JACK
PAUL JOYCE
DEVENDRA SHARMA
YOULA TSANTRIZOS
JOANNE TURNBULL

Adjunct Associate Professors
PERRY D. ANDERSON
SAM COOPER
MICHAEL GRESSER
KEN R. LUM
BHUVAN PANT
DOROTHY POCOCK
RICK YIP

Location

Sir George Williams Campus
Hall Building, Room: H 1139
(514) 848-3366

Department Objectives

Chemistry is the science that examines the structure of substances and the reactions to produce novel and useful products. Biochemistry is that part of chemistry which deals with chemical changes occurring in biologically relevant systems; ie. changes taking place in living cells that are responsible for life processes.

The mission of the Department is fourfold: (i) excellence in teaching and research in the fields of chemistry and biochemistry; (ii) develop and maintain strong undergraduate and graduate teaching programmes; (iii) develop and maintain state-of-the-art quality research; and (iv) meet the high standards of the scientific and industrial communities. Our programmes have strength in both the applied and the theoretical fields.

Programmes

Students are responsible for satisfying their particular degree requirements.

All students are advised to include a course in a computer language in their degree programme.

The Order of Chemists of Québec has fully accredited the curricula of i) Honours in Chemistry; ii) Honours in Biochemistry; iii) Specialization in Analytical Chemistry; iv) Specialization in Biochemistry; v) Specialization in Chemistry. Upon satisfactory completion of any of the above-mentioned programmes, a graduate is eligible for membership in the Order. A working knowledge of French is required.

Please note that the BSc Specialization in Biochemistry and Molecular Biology does ***not*** *meet the requirements of The Order of Chemists of Québec.*

Students should note that CHEM 450 has a performance prerequisite and is essential for Honours programmes. CHEM 419 has a performance prerequisite for the Specialization programmes.

Students who cannot meet these prerequisites will not be able to complete the programmes but may complete a Major. For more details, students should consult with the Department.

Courses that consist of both laboratories and lectures require that a satisfactory performance be obtained in each of the components for successful completion of the course.

The superscript indicates credit value.

45 Core Component for Chemistry and Analytical Chemistry

CHEM 217[3], 218[3], 221[3]*, 222[3]*, 234[3], 235[3], 241[3], 242[3], 271[3], 312[3], 324[3], 325[3], 333[3], 334[3];

Chemistry students must take CHEM 341[3];

Analytical Chemistry students must choose 3 credits from CHEM 341[3] or 375[3]

**For CEGEP equivalents these courses must be replaced with an equivalent number of other Organic Chemistry credits.*

48 Core Component for Biochemistry and for Biochemistry and Molecular Biology

BIOL 261[3]	Molecular and General Genetics
BIOL 266[3]	Cell Biology
BIOL 364[3]	Cell Physiology
BIOL 367[3]	Molecular Biology
BIOL 368[3]	Genetics and Cell Biology Laboratory
CHEM 217[3]	Anal. Chem. I
CHEM 218[3]	Anal. Chem. II
CHEM 221[3]*	Org. Chem. I
CHEM 222[3]*	Org. Chem. II
CHEM 234[3]	Phys. Chem. I
CHEM 235[3]	Phys. Chem. II
CHEM 241[3]	Inorg. Chem. I
CHEM 271[3]	Biochem. I
CHEM 324[3]	Org. Chem. III
CHEM 335[3]	Biophys. Chem.
CHEM 375[3]	Biochem. II

**For students entering with the CEGEP equivalents, these credits must be replaced with an equivalent number of other Organic Chemistry credits.*

BSc Honours in Chemistry

An Honours in Chemistry programme consists of completion of the requirements of the Specialization in Chemistry, or the requirements of the Specialization in Analytical Chemistry, with the election of CHEM 450[6] as the senior research project.

NOTE: Students must meet the University regulations concerning the Honours degree. Honours students are encouraged to attend departmental seminars.

60 BSc Honours in Chemistry

45 Core component in Chemistry
3 MATH 220[3]
12 Additional credits in Chemistry which must include CHEM 450[6]

72 BSc Honours in Biochemistry

48 Core component for Biochemistry
6 CHEM 450[6]
3 CHEM 477[3] or BIOL 466[3]
3 CHEM 325[3]
3 CHEM 312[3]
3 CHEM 333[3]
6 Credits of 400-level courses in the Biochemistry area (CHEM 471[3], 472[3], 473[3], 474[3], 478[3], 481[3], and when appropriate, CHEM 498[3]); three credits may be replaced by a 400-level course in Cell and Molecular Biology (BIOL 420[3], 441[3], 461[3], 462[3], 464[3], 465[3], 468[3], 469[3], 470[3], and when appropriate, BIOL 498[3]).

NOTE: Students must meet the University regulations concerning the Honours degree. Honours students in second year and beyond are encouraged to attend departmental seminars.

72 BSc Honours in Biochemistry and Molecular Biology

48 Core component for Biochemistry and Molecular Biology
6 CHEM 477[3]; BIOL 466[3]
6 CHEM 450[6]
12 Credits of 400-level courses in the area of Biochemistry and Cell and Molecular Biology. At least three credits must be in the area of Biochemistry (CHEM 471[3], 472[3], 473[3], 474[3], 478[3], 481[3], and when appropriate, CHEM 498[3]) and three credits in the area of Cell and Molecular Biology (BIOL 420[3], 441[3], 461[3], 462[3], 464[3], 465[3], 468[3], 469[3], 470[3], and when appropriate, BIOL 498[3]).

NOTE: Students must meet the University regulations concerning the Honours degree. Honours students in second year and beyond are encouraged to attend departmental seminars.

60 BSc Specialization in Chemistry

45 Core component for Chemistry
3 MATH 220[3]
12 Additional credits in Chemistry, which must include *CHEM 419[6]

**With departmental permission, the student may substitute CHEM 450[6] for CHEM 419[6].*

69 BSc Specialization in Biochemistry

48 Core component for Biochemistry
6 CHEM 477[3]; BIOL 466[3]
3 CHEM 325[3]
3 CHEM 312[3]
3 CHEM 333[3]
6 Credits of 400-level courses in the Biochemistry area (CHEM 471[3], 472[3], 473[3], 474[3], 478[3], 481[3], and when appropriate, CHEM 498[3]); three credits may be replaced by a 400-level course in Cell and Molecular Biology (BIOL 420[3], 441[3], 461[3], 462[3], 464[3], 465[3], 468[3], 469[3], 470[3], and when appropriate, BIOL 498[3]).

66 BSc Specialization in Biochemistry and Molecular Biology

48 Core component for Biochemistry and Molecular Biology
6 CHEM 477[3]; BIOL 466[3]

12 Credits of 400-level courses in the area of Biochemistry and Cell and Molecular Biology. At least three credits must be in the area of Biochemistry (CHEM 471[3], 472[3], 473[3], 474[3], 478[3], 481[3], and when appropriate, CHEM 498[3]) and three credits in the area of Cell and Molecular Biology (BIOL 420[3], 441[3], 461[3], 462[3], 464[3], 465[3], 468[3], 469[3], 470[3], and when appropriate, BIOL 498[3]).

NOTE: Students must meet the University regulations concerning the Honours degree. Honours students in second year and beyond are encouraged to attend departmental seminars.

60 BSc Specialization in Analytical Chemistry (Analytical Option)

45 Core component for Analytical Chemistry
6 CHEM 419[6] (with departmental permission, the student may substitute CHEM 450[6] for CHEM 419[6])
9 Chosen from CHEM 412[3], 413[3], 493[3], 494[3], 498G[3]

63 BSc Specialization in Analytical Chemistry (Bioanalytical Option)

45 Core component for Analytical Chemistry
6 CHEM 419[6] (with departmental permission, the student may substitute CHEM 450[6] for CHEM 419[6])
9 CHEM 413[3], 414[3]; BIOL 261[3]
3 Chosen from CHEM 412[3], 493[3], 494[3], 498G[3]

78 BSc Specialization in Geology-Chemistry

See §31.140 Geology

45 BSc Major in Chemistry

45 Core component for Chemistry
Substitution of courses from within the Core programme by other courses in Chemistry or related disciplines (Mathematics, Physics, Biology, Geology) up to a maximum of nine credits, will be accepted, if previously approved by a departmental programme adviser. It is expected that such substitutions will be in accord with the overall programme of study being followed by the student.

45 BSc Major in Biochemistry

BIOL 261[3], 266[3], 364[3], 368[3];
CHEM 217[3], 218[3], 221[3]*, 222[3]*, 234[3], 235[3], 241[3], 271[3], 324[3], 335[3], 375[3]

**For students with CEGEP equivalents, these may be replaced by an equivalent number of credits in Chemistry or related disciplines, as approved by the departmental adviser.*

24 Minor in Chemistry

24 Chosen from the Department's offerings, with due regard to prerequisites, such that the courses chosen form a coherent pattern which complements the student's other areas of study. The course pattern chosen must have been previously approved by a departmental programme adviser.

Chemistry and Biochemistry Co-operative Programme

Director
RAYMOND H. ZIENIUS, *Associate Professor*

The Chemistry and Biochemistry Co-operative programme is offered to students who are enrolled in the BSc Honours or Specialization in Chemistry, Biochemistry, and Analytical Chemistry. Students interested in applying for the Chemistry and Biochemistry co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular programme, but six Study terms are interspersed with four Work terms.

Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education, in order to continue their studies in the co-op format.

Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Chemistry and Biochemistry co-op committee, which includes the student's advisers.

Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

Courses

A student may be exempted from one or more of the introductory courses, on the basis of work done at the CEGEP level. Where exemptions are given, replacement courses must be chosen with the approval of a department adviser. In the case of certain programmes approved by the Order of Chemists of Québec, the courses must be replaced with an equivalent number of credits in the same sub-discipline as the exemptions.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

CHEM 205 ***General Chemistry I*** (3 credits)
Stoichiometry, states of matter, atomic structure, electron structure of atoms, the periodic table, periodic properties, bonding, solids. Lectures and laboratory.
NOTE: This course presumes a good grounding in secondary school mathematics. Students lacking such grounding or non-science students seeking only an awareness of chemistry are advised to enrol in CHEM 208[3].
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

CHEM 206 ***General Chemistry II*** (3 credits)
Prerequisite: CHEM 205. Thermochemistry, solutions and their properties, equilibrium, ionic equilibrium, pH, buffers, kinetics, reaction mechanisms, other selected topics related to biochemistry, biology, and engineering. Lectures and laboratory.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

CHEM 208 ***Chemical Hazards in the Work Environment*** (3 credits)
An introduction to chemistry, chemical hazards, and the social history of chemistry. A study of toxicity, combustion, corrosion, explosives, radiation, and water-reactive materials in the work environment. The course concentrates on establishing the chemical vocabulary and concepts necessary to understand the social impact of chemistry in relation to occupational health and safety, fire-fighting, and environmental hazards. The necessary non-quantitative knowledge of chemistry is developed as the course unfolds.
NOTE: This course is not a prerequisite for any Chemistry course. This course may not be taken for credit by science students.

CHEM 212 ***Analytical Chemistry for Biologists*** (3 credits)
Prerequisite: CEGEP Chemistry 201 or CHEM 206; CEGEP Physics 301 or PHYS 206 and 226; CEGEP Math 203 or MATH 205. Chemical equilibria and titrations, treatment of analytical data, introduction to spectroscopy. Lectures and laboratory.
NOTE: This course may not be taken for credit by students registered in a Chemistry or Biochemistry programme.

CHEM 217 ***Introductory Analytical Chemistry I*** (3 credits)
Prerequisite: CEGEP Chemistry 201 or CHEM 206; CEGEP Physics 301 or PHYS 206 and 226; CEGEP Mathematics 103 or MATH 203; CEGEP Mathematics 203 or MATH 205. Precipitation methods and solubility products; activity, chemical equilibria and titration curves of neutralization and complexation systems; treatment of analytical data. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 211 or GEOL 324 may not take this course for credit.

CHEM 218 ***Introductory Analytical Chemistry II*** (3 credits)
Prerequisite: CHEM 217. Chemical equilibria and titration curves of oxidation-reduction, precipitation, and non-aqueous systems; potentiometry and potentiometric titrations; introduction to spectroscopy with emphasis on molecular and atomic absorption spectroscopy, fluorescence spectroscopy. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 211 or GEOL 324 may not take this course for credit.

CHEM 221 ***Introductory Organic Chemistry I*** (3 credits)
Prerequisite: CEGEP Chemistry 201 or CHEM 206. Basic aspects of orbitals and their role in covalent bonding; delocalization of electrons. Alkanes: structure, nomenclature, isomerism, reactions. Introductory stereochemistry: enantiomers, diastereomers, conformers, Fischer and Newman projections, specification of chirality, E/Z isomerism. Conformations of cyclic compounds. Alkylhalides: S_N1; S_N2; E1; E2 reaction mechanisms. Free-radical reactions, organometallic compounds. Chemistry of alcohols, ethers, and related compounds. Chemistry of alkenes, alkynes, and dienes. Lectures and laboratory.

CHEM 222 ***Introductory Organic Chemistry II*** (3 credits)
Prerequisite: CHEM 221, or one semester CEGEP Organic Chemistry. Introduction to the use of IR and NMR spectroscopy for the identification of simple organic compounds. Benzene and aromatic compounds: aromaticity, electrophilic aromatic substitution, nucleophilic aromatic substitution, substituent effects. Chemistry of aldehydes and ketones: nucleophilic addition, oxidation, reduction, and condensation reactions, tautomerism. Chemistry of carboxylic acids and their derivatives: amines: basicity, reactions. Lectures and laboratory.

CHEM 234 ***Physical Chemistry I: Thermodynamics*** (3 credits)
Prerequisite: CEGEP Chemistry 201 or CHEM 206; CEGEP Physics 301 or PHYS 206 and 226; CEGEP Mathematics 103 or MATH 203; CEGEP Mathematics 203 or MATH 205. The properties of real gases; fugacities; first, second and third laws of thermodynamics; the Phase Rule; one- and two-component systems; real solutions, and partial molal properties. Lectures, problem assignments, and assigned readings.
NOTE: Students who have received credit for CHEM 231 or 232 or 332 or this topic under a CHEM 298 number may not take this course for credit.

CHEM 235 ***Physical Chemistry: Kinetics of Chemical Reactions*** (3 credits)
Prerequisite: CHEM 234. Mathematical treatment of experimental results; theories of reaction rates; unimolecular reactions; the steady-state approximation; factors influencing rates of reactions in solution; acid-base catalysis; catalysis by enzymes and the Michaelis-Menten mechanism; free-radical reactions; photochemical reactions; experimental methods and techniques. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 331 or for this topic under a CHEM 298 number may not take this course for credit.

CHEM 241 ***Inorganic Chemistry I: Introduction to Periodicity and Valence Theory*** (3 credits)
Prerequisite: CEGEP Chemistry 201 or CHEM 206; CEGEP Physics 301 or PHYS 206 and 226; CEGEP Mathematics 103 or MATH 203; CEGEP Mathematics 203 or MATH 205. The structure of the atom; the periodic table; properties of atoms, covalent bonding treatments including Lewis theory, valence shell electron pair repulsion theory of structure, valence bond and molecular orbital theory. Crystal field theory applied to the structure and properties of transition metal complexes. Bonding theories of metallic materials and semi-conductors. Lectures and laboratory.

CHEM 242 ***Inorganic Chemistry II: The Chemistry of the Main Group Elements*** (3 credits)
Prerequisite: CEGEP Chemistry 201 or CHEM 206; CEGEP Physics 301 or PHYS 206 and 226; CEGEP Mathematics 103 or MATH 203; CEGEP Mathematics 203 or MATH 205. A survey of the properties and reactions of: hydrogen; group IA, lithium to caesium; and IIA, beryllium to radium; including the theory of ionic bonding and structure. The descriptive chemistry of groups IIIA, boron to thallium; IVB, carbon to lead; VB, nitrogen to bismuth; VIB, sulphur to polonium; VIIB, the halogens; and the chemistry of the noble gases. Lectures and laboratory.

CHEM 271 ***Biochemistry I*** (3 credits)
Prerequisite: CHEM 221; CHEM 222 previously or concurrently. An introduction to the essentials of biochemistry: protein structure, enzymology, carbohydrate metabolism, electron transport, integration and regulation of metabolism. Lectures and tutorials.
NOTE: Students who have received credit for CHEM 371 or CHEM 372 or CHEM 373 may not take this course for credit.

CHEM 298 ***Selected Topics in Chemistry*** (3 credits)

CHEM 299 ***Selected Topics in Chemistry*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

CHEM 302 ***Industrial Chemistry, Resources and Environment*** (2 credits)
Prerequisite: Must be registered in a Chemistry programme and be within 42 credits of graduation; or written permission of the Department. An introduction to chemical engineering for chemists. Management and conservation of resources; pollution control; occupational and environmental health; technological and environmental impact assessment.

CHEM 304 ***Chemical Technology and Human Values*** (3 credits)
Prerequisite: Must be registered in a Chemistry programme and be within 42 credits of graduation; or written permission of the Department. The history of technology; the impact of chemistry on material life; appropriate technologies; chemistry and war; the social responsibility of the scientist.
NOTE: Students who have received credit for CHEM 303 may not take this course for credit.

CHEM 312 ***Intermediate Analytical Chemistry*** (3 credits)
Prerequisite: CHEM 217; CHEM 218. A continuation of CHEM 217 and 218, with emphasis on instrumental methods of analysis. Emission spectroscopy; X-ray spectroscopy; voltammetry and polarography; amperometric titrations; coulometry and coulometric titrations, conductometry; chromatography with particular emphasis on gas chromatography, and high performance liquid chromatography. Laboratory is taken concurrently and provides experience in analytical techniques described in lectures. Lectures and laboratory.
NOTE: Students who have received credit for any of CHEM 310, CHEM 314, CHEM 315, or CHEM 319, may not take this course for credit.

CHEM 324 ***Organic Chemistry III: Organic Reactions*** (3 credits)
Prerequisite: CHEM 222, or equivalent; CHEM 235 previously or concurrently. A mechanistic survey of reactions of major synthetic utility. Determination of reaction mechanisms. Importance of reactive intermediates: carbocations, carbanions, radicals, and carbenes. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 322 may not take this course for credit.

CHEM 325 ***Organic Chemistry IV: Organic Structure and Stereochemistry*** (3 credits)
Prerequisite: CHEM 222, or equivalent; CHEM 235 previously or concurrently. Organic structure and stereochemistry including the relationship of stereochemistry to physical properties and chemical reactivity. Determination of organic structure and stereochemistry by chemical and spectroscopic means. Identification of organic compounds (principally in the laboratory section). Lectures and laboratory.
NOTE: Students who have received credit for CHEM 321 may not take this course for credit.

CHEM 326 ***Natural Products*** (3 credits)
Prerequisite: CHEM 324 previously or concurrently. The structures, mechanisms of action, and biosynthetic origins of biologically important compounds such as fatty acids, polyketides, terpenes, steroids, alkaloids, and beta-lactam antibiotics are discussed. The role of traditional organic chemistry in the development of modern biochemistry and biotechnology is illustrated with examples from medicine and agriculture. Lectures only.

CHEM 327 ***Organic Chemistry of Polymers*** (3 credits)
Prerequisite: CHEM 222, or equivalent. Introduction to the fundamental aspects of polymers and polymerization. Methods of preparation, reaction mechanisms of polymer synthesis including condensation polymerization; addition polymerization: free radical, anionic, cationic; Ziegler-Natta (heterogeneous) polymerization. Lectures and problem sessions.

CHEM 328 ***Analytical Organic Chemistry and Spectroscopy*** (3 credits)
Prerequisite: CHEM 218; CHEM 222; CHEM 333. Principles of physical, chemical, and instrumental methods of identification and analysis of organic compounds. "Wet" chemistry as a means of functional group identification. Protocol of identification of unknown organic compounds by chemical and spectroscopic methods. Application of vibrational, electronic, nuclear magnetic resonance and mass spectrometric techniques in the elucidation of structure of organic compounds. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 311 and CHEM 316, or CHEM 391, may not take this course for credit.

CHEM 333 ***Physical Chemistry: Spectroscopy and Quantum Theory*** (3 credits)
Prerequisite: CHEM 235. The course introduces students to the ideas of quantum mechanics, spectroscopy, and the electronic structure of atoms and molecules. Topics include the origins and postulates of quantum theory; applications to simple systems; the hydrogen atom; the aufbau principle of the elements; simple molecules. Spectroscopy and spectroscopic measurement; simple atomic spectra; infrared and Raman spectra of simple molecules; fluorescence; N.M.R. Lectures only.
NOTE: Students who have received credit for CHEM 233 may not take this course for credit.

CHEM 334 ***Physical Chemistry: Laboratory*** (3 credits)
Prerequisite: CHEM 235. A series of experiments illustrating modern techniques for the examination of solids, liquids, and gases. Some experiments may include the automated collection and computerized analysis of data. Laboratory only.
NOTE: Students who have received credit for CHEM 338 and 339 may not take this course for credit.

CHEM 335 ***Biophysical Chemistry*** (3 credits)
Prerequisite: CHEM 235; CHEM 271. Physical techniques used to study the structure of biological macromolecules. Lectures and laboratory.

CHEM 341 ***Inorganic Chemistry III: The Transition Metals*** (3 credits)
Prerequisite: CHEM 217; CHEM 218; CHEM 241; CHEM 242. Theories of bonding in transition metal complexes, including ligand field theory, applied to structure, physical properties, and reactivity of transition metal complexes: organometallic chemistry and catalysis. Metals in biological systems. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 342 or CHEM 348 may not take this course for credit.

CHEM 375 ***Biochemistry II*** (3 credits)
Prerequisite: CHEM 271; CHEM 222; CHEM 217 or CHEM 212; BIOL 261. A survey of selected pathways in intermediary metabolism, including their regulation and physiological significance: lipid, amino acid and nucleoside metabolism, cholesterol biosynthesis, urea cycle and the biochemistry of protein synthesis. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 371 or CHEM 372 or CHEM 373 may not take this course for credit.

CHEM 389 ***Industrial Chemical Laboratory*** (1 credit)
Prerequisite: CHEM 222; CHEM 333 or CHEM 234, previously or concurrently; or written permission of the Department. A course designed to provide the student with an understanding of the philosophies of industrial quality control, and of industrial research and development. Common industrial techniques are studied, including laboratory safety; measurement of physical properties; synthetic procedures both organic and inorganic; and various separation techniques. Several instrumental analytical methods are employed, and a final report on the work of the term is submitted. Laboratory only.

CHEM 398 ***Selected Topics in Chemistry*** (3 credits)

CHEM 399 ***Selected Topics in Chemistry*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

CHEM 412 ***Statistical Methods in Chemistry*** (3 credits)
Prerequisite: CHEM 218. This course studies a number of methods by which chemists analyse data, systematically collate data, and plan the efficient collection of further data. As much as

possible the lectures will draw upon chemical examples, but there is not a heavy emphasis on theoretical proofs. Students are encouraged to use the statistical packages available on the University's P.C. computer network to do their assignments. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 413 ***Advanced Bioanalytical Chemistry*** (3 credits)
Prerequisite: CHEM 312. Analytical chemistry of biomolecules. Topics include spectroscopic methods for quantitating total protein, nucleic acids, carbohydrates, and fatty acids; enzyme units, kinetics, assays for enzyme activities, use of enzymes for substrate/inhibitor assays; immobilized enzymes; antibody structure and assays based on secondary antibody-antigen reactions; labelled-binding immunoassays; biosensors; principles of electrophoresis; isoelectric focusing; capillary electrophoresis; chromatography of biomolecules. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 414 ***Advanced Bioanalytical Chemistry Laboratory*** (3 credits)
Prequisite: CHEM 413 previously or concurrently. A course focusing on practical applications of methods introduced in CHEM 413. Methods covered include assays for total protein, enzyme assays, immobilized enzymes, immunoassay (ELISA) methods, polyacrylamide gel electrophoresis (SDS-PAGE) of proteins, quantitative gel filtration chromatography of proteins and electrophoresis of DNA, peptide mapping by HPLC, quantitative DNA-ligand binding assays; dideoxy DNA sequencing by capillary electrophoresis. Laboratory only.

CHEM 419 ***Independent Study and Practicum*** (6 credits)
Prerequisite: Must have completed the 45-credit Core programme, or equivalent, with a GPA of 2.00 (C) or better. In collaboration with and under the direction of a member of Faculty, the student carries out independent study and practical work on a problem chosen from the student's area of concentration. The student submits a written report on the results of the work and the report is scrutinized by a committee of members of the Department.
NOTE: During the academic session before the one in which this project is to be undertaken, the student must have obtained the consent of the Department, by consultation with the CHEM 419 coordinator, and must have also been accepted by a faculty supervisor. Independent study and practical work.

CHEM 421 ***Physical Organic Chemistry*** (3 credits)
Prerequisite: CHEM 324 or CHEM 325; CHEM 235. Determination of organic reaction mechanisms using kinetics, activation parameters, acid-base catalysis, Bronsted catalysis law, solvent effects, medium effects, isotope effects, substitutent effects, and linear free energy relationships. Lectures only.

CHEM 423 ***Heterocyclic Chemistry*** (3 credits)
Prerequisite: CHEM 324 or CHEM 325. Survey of the chemistry of three-, four-, five-, and six-membered heterocyclics, with a particular emphasis on heteroaromatic systems. Synthesis and reactions of heterocyclics; their use in synthesis; factors affecting their reactivity. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 424 ***Organic Synthesis*** (3 credits)
Prerequisite: CHEM 324. This course is concerned with synthetic strategy and design. Applications of modern synthetic methods and reagents are exemplified by syntheses of natural products, peptides, nucleic acids, and novel chemotherapeutic agents. Lectures only.
NOTE: Students who have received credit for CHEM 422 may not take this course for credit.

CHEM 435 ***Physical Chemistry of Polymers*** (3 credits)
Prerequisite: CHEM 222; CHEM 234. Physical properties of polymers; polymer-solution theory; molecular-weight distributions and fractionation; molecular-weight determinations by colligative properties, light-scattering and ultra-centrifuge techniques; kinetics of condensation and addition polymerizations; co-polymerization. Lectures and problem sessions.
NOTE: Students who have received credit for CHEM 335 or CHEM 336 may not take this course for credit.

CHEM 441 ***Single Crystal X-Ray Diffraction*** (3 credits)
Prerequisite: CHEM 325. Space group symmetry. Diffraction of X-rays by single crystals. Photographic and counter methods of diffraction data collection. Solution and refinement and crystal structures. Interpretation of atomic coordinates and vibrations. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 442 ***Physical Methods in Inorganic Chemistry*** (3 credits)
Prerequisite: CHEM 341; CHEM 328 previously or concurrently. Introduction to symmetry and the character tables. Diffraction methods, X-ray, ESCA, UV-Visible, ORD and CD, EPR, Mössbauer, NQR, NMR, IR, and Raman. Lectures only.

CHEM 444 ***Mössbauer Spectroscopy and Magnetic Properties of Materials*** (3 credits)
Prerequisite: CHEM 241, CHEM 242 and CHEM 341, previously or concurrently. Introduction to the crystalline state, X-ray and neutron diffraction; vibrational properties of solids, phonons; magnetic properties of materials: diamagnetism, paramagnetism, ferromagnetism, antiferromagnetism, ferrimagnetism, and other ordered states; theory of the Mössbauer effect, hyperfine interactions; Mössbauer spectroscopy, techniques, applications; examples of Mössbauer studies: iron, tin, other main group elements, other transition elements, lanthanides and actinides; combined studies of solids by X-ray and neutron diffraction, magnetic measurements, and Mössbauer spectroscopy. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 445 ***Heterogeneous Catalysis*** (3 credits)
Prerequisite: CHEM 234. Surface phenomena in heterogeneous catalysis (adsorption; texture of solids; introduction to the main techniques for the characterization of catalysts). Relationships between surface properties and catalyst activities (basic concepts in catalysis). Catalytic kinetics. Catalytic reaction systems (introduction to the theory of catalytic reactors; diffusion, heat, and mass transfer within porous solids; shape selectivity, catalyst-activity decay). Industrial catalysis; new trends. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 446 ***Basic Electrochemistry*** (3 credits)
Prerequisite: CHEM 234; CHEM 235; or written permission of the Department. This course covers a specialized area in physical and analytical chemistry and, in particular, develops concepts introduced in CHEM 217, CHEM 218, and CHEM 312. The theory behind these concepts is further described to explain the principles of corrosion and battery research and development. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 447 ***Electronic Spectroscopy*** (3 credits)
Prerequisite: CHEM 333; CHEM 341. This course is intended to provide the student with the theoretical background necessary to understand and work with electronic spectra, to illustrate and discuss the methods involved in assigning spectral transitions, and to explain states and symmetries. The course assumes that the student has some knowledge of atomic structure, molecular symmetry, and group theory. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 449 ***Laboratory in Synthesis and Techniques in Inorganic Chemistry*** (1 credit)
Prerequisite: CHEM 442 previously or concurrently. Some of the techniques discussed in CHEM 442 are employed in the laboratory to characterize and determine properties of compounds synthesized at the laboratory bench. Laboratory only.

CHEM 450 ***Research Project and Thesis*** (6 credits)
Prerequisite: Sixty credits including the 45-credit Core programme, or equivalent and enrolment in Honours in Chemistry; or written permission of the Department. By departmental decision, such permission is only given if the student has a GPA of 3.00 or better, for all courses in this programme. The student works on a research project in the student's area of concentration, selected in consultation with and conducted under the supervision of a faculty member of the Department, and writes a thesis on the results. The project is also the subject of a seminar before the Department.
NOTE: During the academic session before the one in which this project is to be undertaken, the student must have obtained the consent of the Department, by consultation with the CHEM 450 coordinator, and must have also been accepted by a faculty supervisor.

CHEM 471 ***Enzyme Kinetics and Mechanism*** (3 credits)
Prerequisite: CHEM 271; 60 credits. Steady-state kinetics, including the use of initial velocity studies and product inhibition to establish a kinetic mechanism; nonsteady-state kinetics, isotope effects, energy of activation, etc; detailed mechanisms of selected enzymes. Lectures only.

CHEM 472 ***Chemical Toxicology*** (3 credits)
Prerequisite: CHEM 271; 60 credits; or written permission of the Department. Introduction to the general principles of toxicology with emphasis on the toxic effects of chemicals in humans. Dose-response relationship, types and routes of exposure, absorption and disposition of toxic substances, toxicokinetics, types of toxic response, and factors affecting toxic response. Toxicity testing, risk assessment, and interpretation of toxicological data. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 473 ***Medicinal Chemistry I*** (3 credits)
Prerequisite: CHEM 271; 60 credits. Physico-chemical principles of drug action. Influence of

solubility, surface phenomena, stereochemistry, and electronic properties on drug action. Non-specific drugs, anaesthetics, membrane-active disinfectants and antibiotics. Quantitative structure-activity relationships. Receptor theory and models, methods of receptor characterization. Lectures only.

CHEM 474 ***Medicinal Chemistry II*** (3 credits)
Prerequisite: CHEM 473; or written permission of the Department. Drugs acting on endogenous messengers and their targets: cholinergic, adrenergic, dopaminergic, and serotoninergic neuronal systems. Histamine, amino acid neurotransmitters. Steroid and peptide hormones, prostaglandins. Enzymes as drug receptors. Drug design. Lectures only.

CHEM 477 ***Advanced Laboratory in Biochemistry*** (3 credits)
Prerequisite: CHEM 375; BIOL 368. Theory and practice of techniques in enzymology and protein chemistry, including steady-state and stopped-flow enzyme kinetics, ligand binding, immunological techniques, computer modelling, identification of groups at the active site. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 479 may not take this course for credit.

CHEM 478 ***Hormone Biochemistry*** (3 credits)
Prerequisite: CHEM 271 and third-year standing. This course deals with an in-depth study of the vertebrate hormones and involves a study of the precise chemical structure and properties of each hormone, its biosynthesis and mode of secretion from the cell. The circulating form of the hormone is examined, as well as the nature of the hormone receptor. The cellular mechanism of action and the relationship of the hormone's action to the intact animal are investigated. Lectures only.

CHEM 481 ***Bioinorganic Chemistry*** (3 credits)
Prerequisite: CHEM 271; CHEM 241. Role of metals in biochemical systems. Essential trace elements, zinc enzymes, oxygen transport and storage, metalloproteins and biological electron transfer, structure-function relationships in heme enzymes, nitrogen fixation; model compounds for metalloproteins and metalloenzymes. Lectures only.

CHEM 482 ***Properties and Models of the Solid State*** (3 credits)
Prerequisite: CHEM 234; CHEM 328; or written permission of the Department; 60 credits. Crystal structure and the reciprocal lattice; lattice dynamics; free electron theory; band theory; semiconductors; dielectric and magnetic properties of solids. Lectures only.

CHEM 491 ***Advanced Instrumentation*** (4 credits)
Prerequisite: CHEM 392. A study of the amplifiers, transducers, and other circuit elements used to acquire data in chemistry, in the analog, time, and digital data domains. A study of these circuits as regards optimization, frequency response, sampling parameters, signal-to-noise enhancement and budget-error analysis. Some of the concepts involved in computer interfacing, for both control and data collection, are discussed. In the laboratory, selected experiments illustrate the topics discussed in lectures. Lectures and laboratory.
NOTE: Students who have received credit for CHEM 490 or CHEM 497 or CHEM 499 may not take this course for credit.

CHEM 492 ***Chemical Spectroscopy*** (4 credits)
Prerequisite: CHEM 321 or CHEM 324; CHEM 328. Theory and application of EPR spectroscopy, rotational spectroscopy, rotation-vibrational spectroscopy, Raman spectroscopy. Lectures and laboratory.

CHEM 493 ***Magnetic Resonance Spectroscopy*** (3 credits)
Prerequisite: CHEM 222, or equivalent. This course is designed to provide the background in magnetic resonance theory necessary to understand modern high-resolution NMR experiments and instrumentation. The basic theory in the introductory section also applies to electron spin resonance (ESR). Relaxation and through-bond and through-space interactions, and experiments to investigate them are considered. Spin manipulations and behaviour in multiple-pulse, Fourier transform NMR techniques used for common spectral editing and two-dimensional experiments are discussed. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 494 ***Mass Spectrometry*** (3 credits)
Prerequisite: CHEM 235. Production and interpretation of mass spectra. Topics include: ionization methods (electron impact, chemical ionization and fast-atom bombardment); interpretation of mass spectra; introduction to quantitative analysis by mass spectrometry. Lectures only.
NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 498 ***Advanced Topics in Chemistry*** (3 credits)

CHEM 499 ***Advanced Topics in Chemistry*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.060 CLASSICS

Faculty

Acting Chair
ANNETTE TEFFETELLER, *Associate Professor*

Professor
EILEEN M. PRESTON

Associate Professors
DANIEL BROWN
LIONEL J. SANDERS

Assistant Professors
M. CATHERINE BOLTON
JANE E. FRANCIS

Location

Loyola Campus
Hingston Hall B, Room: HB 102
(514) 848-2485

Department Objectives

The study of classics is by nature interdisciplinary, exploring the cultures of ancient Greece and Rome in all aspects, from language, literature, and art to archaeology, philosophy, and science. These two cultures, influenced by those of the Near East, form the roots of Western civilization. The Department of Classics has two related aims: first, to provide a broad and stimulating programme to students interested in exploring their cultural roots; secondly, to train specialists in reading and interpreting texts in ancient Greek and Latin.

Programmes

The Department offers programmes in Classical Philology, Classical Studies, and Classical Archaeology.
Programmes in Classical Philology require competence in Ancient Greek and Latin and are directed towards an understanding and appreciation of classical languages and literature.
Programmes in Classical Studies do not require an exhaustive knowledge of Greek and Latin, but are concerned with a broadly based study of ancient society.
The Honours programmes in Classical Philology and in Classical Studies provide the background necessary for graduate studies in different aspects of classics. Students should inform themselves well in advance of the level of competence in classical languages required for admission to the respective graduate programmes.
Major programmes in Classics are not designed to prepare students for further specialized study. They provide an excellent liberal education and may be very effectively combined with programmes in other fields, especially in the humanities.
The Minor programmes provide a basic exposure to the field and are designed to complement other programmes.
Most courses are open as electives to students in other departments.
Students must consult the Department chair to select the courses in their programmes. For details on suggested programmes, see the Classics Course Guide. Students are advised to refer to the Undergraduate Class Schedule for the campus where individual courses will be offered.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

72 BA Honours in Classical Philology
Stage I
18 CLAS 240^{3}, 242^{3}, 280^{6}, 290^{6}
Stage II
6 Chosen from CLAS 211^{3}, 212^{3}, 326^{3}, 327^{3}
12 CLAS 380^{6}, 390^{6}
Stage III
18 Credits of Greek selected from CLAS 480^{6}, 481^{6}, 482^{6}, 483^{6}, 484^{6}, 485^{6}, 486^{6}, 498^{3}, 499^{6}
18 Credits of Latin selected from CLAS 490^{6}, 491^{6}, 492^{6}, 493^{6}, 495^{3}, 496^{3}, 498^{3}, 499^{6}

42 BA Major in Classical Philology
Stage I
18 CLAS 211^{3}, 212^{3}, 280^{6}, 290^{6}
Stage II
18 CLAS 240^{3}, 242^{3}, 380^{6}, 390^{6}
Stage III
6 Credits of Latin or Greek at the advanced level

24 Minor in Classical Philology
24 Credits in either Greek and/or Latin

48 BA Major in Latin and Classical Studies
Stage I
15 CLAS 211^{3}, 212^{3}, 242^{3}, 290^{6}

Stage II

15 CLAS 343[3], 366[3], 367[3], 390[6]

6 Chosen from CLAS 261[3], 280[6], 323[3], 325[3], 355[3]

Stage III

6 Credits in Latin prose chosen from CLAS 490[6], 491[6], 495[3], 498[3]

6 Credits in Latin poetry chosen from CLAS 492[6], 493[6], 496[3], 498[3]

60 BA Honours in Classical Studies

Stage I

12 CLAS 211[3], 212[3], 240[3], 242[3]

6 Chosen from CLAS 280[6], 290[6]

Stage II

9 Chosen from CLAS 230[3], 261[3], 262[3], 266[3], 267[3], 298[3], 299[6]

6 Chosen from CLAS 280[6], 290[6]

Stage III

27 Chosen from CLAS 323[3], 324[3], 325[3], 326[3], 327[3], 341[3], 343[3], 354[3], 355[3], 364[3], 365[3], 366[3], 367[3], 368[6], 380[6], 390[6], 398[3], 399[6], 468[3], 498[3], 499[6]; ARTH 360[3], 361[3]; PHIL 370[6]

Courses in Greek and Latin at the 400 level

60 BA Specialization in Classical Studies

Stage I

12 CLAS 211[3], 212[3], 240[3], 242[3]

Stage II

12 Chosen from CLAS 230[3], 261[3], 262[3], 266[3], 267[3], 280[6], 290[6], 298[3], 299[6]

Stage III

36 Chosen from CLAS 323[3], 324[3], 325[3], 326[3], 327[3], 341[3], 343[3], 354[3], 355[3], 364[3], 365[3], 366[3], 367[3], 368[6], 380[6], 390[6], 398[3], 399[6], 468[3], 498[3], 499[6]; ARTH 360[3], 361[3]; PHIL 370[6]

Courses in Greek and Latin at the 400 level

42 BA Major in Classical Studies

Stage I

12 CLAS 211[3], 212[3], 240[3], 242[3]

Stage II

15 Chosen from CLAS 230[3], 261[3], 262[3], 266[3], 267[3], 280[6], 290[6], 298[3], 299[6]

Stage III

15 Chosen from CLAS 323[3], 324[3], 325[3], 326[3], 327[3], 341[3], 343[3], 354[3], 355[3], 364[3], 365[3], 366[3], 367[3], 368[6], 380[6], 390[6], 398[3], 399[6], 468[3], 498[3], 499[6]; ARTH 360[3], 361[3]; PHIL 370[6]

24 Minor in Classical Studies

6 CLAS 211[3], 212[3]

6 Chosen from CLAS 240[3], 242[3], 341[3]

12 Chosen from CLAS 261[3], 262[3], 266[3], 267[3], 280[6], 290[6], 298[3], 299[6], 324[3], 325[3], 326[3], 327[3], 343[3], 398[3], 399[6]

24 Minor in Classical Archaeology

6 CLAS 266[3], 267[3]

12 Either CLAS 240[3], 341[3], 364[3], 365[3], or CLAS 242[3], 343[3], 366[3], 367[3]

6 Chosen, with the approval of the Department, from courses in Classics or Art History, or from fieldwork courses in Archaeology.

GROUP 1: CLASSICAL STUDIES

A. Literature

CLAS 211 The Beginnings of European Literature I (Greek Literature) (3 credits)

CLAS 212 The Beginnings of European Literature II (Roman Literature) (3 credits)

CLAS 323 Roman Satire (3 credits)

CLAS 324 Greek Epic (3 credits)

CLAS 325 Roman Epic (3 credits)

CLAS 326 Greek and Roman Drama I (3 credits)

CLAS 327 Greek and Roman Drama II (3 credits)

B. History

CLAS 230 (also given as HIST 219) Ancient Near East (3 credits)

CLAS 240 (also given as HIST 223) Greek History I (3 credits)

CLAS 242 (also given as HIST 225) History of the Roman Republic (3 credits)

CLAS 341 (also given as HIST 323) Greek History II (3 credits)

CLAS 343 (also given as HIST 327) History of the Roman Empire (3 credits)

C. Culture and Civilization

CLAS 261 Mythology I (3 credits)

CLAS 262 Mythology II (3 credits)

CLAS 354 Women in Classical Antiquity I (3 credits)

CLAS 355 Women in Classical Antiquity II (3 credits)

D. Archaeology

CLAS 266 An Introduction to Classical Archaeology (3 credits)

CLAS 267 The Archaeology of the Greek Bronze Age (3 credits)

CLAS 364 Classical Greek Art and Archaeology (3 credits)

CLAS 365 Art and Archaeology of the Hellenistic Age (3 credits)

CLAS 366 Etruscan and Roman Republican Art and Archaeology (3 credits)

CLAS 367 Roman Imperial Art and Archaeology (3 credits)

	CLAS 368	Fieldwork in Archaeology (6 credits)	**CLAS 468**	Research Seminar in Archaeology (3 credits)

GROUP 2: CLASSICAL PHILOLOGY

A. Classical Greek

CLAS 280	Elementary Classical Greek (6 credits)	**CLAS 482**	Homer (6 credits)
CLAS 380	Intermediate Classical Greek (6 credits)	**CLAS 483**	Greek Tragedians (6 credits)
CLAS 480	Greek Historians (6 credits)	**CLAS 484**	Greek Orators (6 credits)
CLAS 481	Plato (6 credits)	**CLAS 485**	Greek Comedy (6 credits)
		CLAS 486	Pindar (6 credits)

B. Latin

CLAS 290	Elementary Latin (6 credits)	**CLAS 492**	Roman Poetry I (6 credits)
CLAS 390	Intermediate Latin (6 credits)	**CLAS 493**	Roman Poetry II (6 credits)
CLAS 490	Roman Historians (6 credits)	**CLAS 495**	Roman Comedy (3 credits)
CLAS 491	Cicero (6 credits)	**CLAS 496**	Latin Satire (3 credits)

GROUP 3: SPECIAL COURSES (EITHER PHILOLOGY OR CLASSICAL STUDIES)

CLAS 298	Selected Topics in Classics (3 credits)	**CLAS 399**	Selected Topics in Classics (6 credits)
CLAS 299	Selected Topics in Classics (6 credits)	**CLAS 498**	Advanced Topics in Classics (3 credits)
CLAS 398	Selected Topics in Classics (3 credits)	**CLAS 499**	Advanced Topics in Classics (6 credits)

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

CLAS 211 ***The Beginnings of European Literature I (Greek Literature)*** (3 credits)
The Greek background of European literature. Selections from Homer, the Greek dramatists, Plato, and Aristotle.

CLAS 212 ***The Beginnings of European Literature II (Roman Literature)*** (3 credits)
The Roman background of European literature. Selections from Lucretius, Catullus, Cicero, Virgil, Horace, Ovid, Seneca, and Juvenal.

CLAS 230 ***(also given as HIST 219) Ancient Near East*** (3 credits)
The emergence of the world's earliest civilizations from the Neolithic cultures of Ancient Mesopotamia and Egypt. The continuing history of the Fertile Crescent to the end of the Bronze Age. The Near Eastern origins of Bronze Age Crete and Greece.

CLAS 240 ***(also given as HIST 223) Greek History I*** (3 credits)
A political, social, economic, and cultural history of Greece from Minoan-Mycenaean times to the end of Classical Greek civilization in the fourth century B.C., with special emphasis placed upon Athens.

CLAS 242 ***(also given as HIST 225) History of the Roman Republic*** (3 credits)
A political, social, economic, and cultural history of Rome from the city's origins to the establishment of the Roman Empire under the Emperor Augustus.

CLAS 261 ***Mythology I*** (3 credits)
A survey of myths and mythological figures as recorded in ancient Greek literary sources and art.

CLAS 262 ***Mythology II*** (3 credits)
An examination of the universal features and recurrent patterns in the Mesopotamian, Egyptian, Greek, and Roman mythologies.

CLAS 266 ***An Introduction to Classical Archaeology*** (3 credits)
This course is a prerequisite for all further courses in Classical Archaeology. It includes a survey of the history of Classical Archaeology as well as an introduction to modern excavation techniques such as palynology, dendrochronology and radiocarbon dating. Further, the salient diagnostic characteristics of the principal divisions of Greek and Roman art and architecture are presented for examination and analysis. The course thus stresses the identification of representative artifacts with regard to date, provenance, purpose, derivation, and tradition.

CLAS 267 ***The Archaeology of the Greek Bronze Age*** (3 credits)
Prerequisite: CLAS 266. The Bronze Age in Mainland Greece, Crete, and the Greek Islands.

CLAS 280 ***Elementary Classical Greek*** (6 credits)
A course in the fundamentals of the grammar and syntax of ancient Greek.

CLAS 290 ***Elementary Latin*** (6 credits)
A course in the fundamentals of Latin grammar and syntax.

CLAS 298 ***Selected Topics in Classics*** (3 credits)

CLAS 299 ***Selected Topics in Classics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

CLAS 323 ***Roman Satire*** (3 credits)
A study of the satiric genre, its birth and development in Roman literature and its connection with the early novel as seen in the English translations of the works of Horace, Juvenal, Petronius, Persius, Seneca, and Apuleius.

CLAS 324 ***Greek Epic*** (3 credits)
A study of the *Iliad* and *Odyssey* of Homer and of the development of Greek epic.

CLAS 325 ***Roman Epic*** (3 credits)
Study of the *Aeneid* of Virgil and of the development of Roman epic.

CLAS 326 ***Greek and Roman Drama I*** (3 credits)
A study of the origins and growth of Attic tragedy with a close examination of plays of Aeschylus and Sophocles.

CLAS 327 ***Greek and Roman Drama II*** (3 credits)
Prerequisite: CLAS 326. A continued study of the development of Greek tragedy as seen in plays of Euripides. The origins and growth of Greek comedy as seen in the plays of Aristophanes and Menander. The influence of classical Greek drama on the Roman playwrights Plautus, Terence and Seneca and on European drama.

CLAS 341 ***(also given as HIST 323) Greek History II*** (3 credits)
A political, social, economic, and cultural history of the Greek world from Alexander the Great to the Roman conquest of Greece in 146 B.C.
NOTE: Students who have received credit for CLAS 241/HIST 224 may not take this course for credit.

CLAS 343 ***(also given as HIST 327) History of the Roman Empire*** (3 credits)
A political, social, economic, and cultural history of the Roman Empire from Augustus to the end of the Roman Empire in the West.
NOTE: Students who have received credit for CLAS 243/HIST 226 may not take this course for credit.

CLAS 354 ***Women in Classical Antiquity I*** (3 credits)
An examination of the status and the role of women in prehistoric, archaic, and classical Greek societies.
NOTE: Students who have received credit for CLAS 254 may not take this course for credit.

CLAS 355 ***Women in Classical Antiquity II*** (3 credits)
An examination of the status and the role of women in the Hellenistic and Roman worlds.
NOTE: Students who have received credit for CLAS 254 may not take this course for credit.

CLAS 364 ***Classical Greek Art and Archaeology*** (3 credits)
Prerequisite: CLAS 266. The art and architecture of the Greek world from 900 to 323 B.C. A study of the geometric, archaic, and classical periods with particular attention to painting (especially ceramics), sculpture, and architecture. Some work is done at the Montréal Museum of Fine Arts.

CLAS 365 ***Art and Archaeology of the Hellenistic Age*** (3 credits)
Prerequisite: CLAS 266. The art and architecture of the Greek world after the death of Alexander the Great. Hellenistic aestheticism, synthesis of oriental and Greek tradition in the visual arts. Impact of Hellenistic art on Rome.

CLAS 366 ***Etruscan and Roman Republican Art and Archaeology*** (3 credits)
Prerequisite: CLAS 266. A survey of Neolithic, Bronze, and early Iron Age cultures in Italy. Etruscan civilization and the coming of the Greeks. The archaeological reconstruction of the city of Rome in the Republican period. Some work is done at the Montréal Museum of Fine Arts.

CLAS 367 ***Roman Imperial Art and Archaeology*** (3 credits)
Prerequisite: CLAS 266. Development of Roman art and architecture from Augustus to the late Roman Empire. Roads, fortifications, aqueducts, theatres, porticos, monuments, baths, and basilicas. Pompeii and Herculaneum. Special emphasis on Roman Britain.

CLAS 368 ***Fieldwork in Archaeology*** (6 credits)
Prerequisite: CLAS 267 or CLAS 364. A study of the problems of practical archaeology (stratigraphy, dating, etc.) through fieldwork on an archaeological excavation (minimum four weeks).

CLAS 380 ***Intermediate Classical Greek*** (6 credits)
Prerequisite: CLAS 280 or equivalent. Training in the acquisition of a reading command of the language. Readings from Plato, Xenophon, and others.

CLAS 390 ***Intermediate Latin*** (6 credits)
Prerequisite: CLAS 290 or equivalent. Training in the acquisition of a reading command of the language. Readings from authors such as Cicero, Catullus, Pliny, and Seneca.

CLAS 398 ***Selected Topics in Classics*** (3 credits)

CLAS 399 ***Selected Topics in Classics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

CLAS 468 ***Research Seminar in Archaeology*** (3 credits)
Prerequisite: CLAS 368. The course provides an opportunity to study the finds and to analyse the problems encountered during the excavation undertaken in CLAS 368.

CLAS 480 ***Greek Historians*** (6 credits)
Prerequisite: CLAS 380 or equivalent. Readings in Greek from Herodotus and Thucydides.

CLAS 481 ***Plato*** (6 credits)
Prerequisite: CLAS 380 or equivalent. Readings in Greek from *The Republic,* and other major dialogues.

CLAS 482 ***Homer*** (6 credits)
Prerequisite: CLAS 380 or equivalent. Readings in Greek from the *Iliad* and the *Odyssey.*

CLAS 483 ***Greek Tragedians*** (6 credits)
Prerequisite: CLAS 380 or equivalent. Readings in Greek from Aeschylus, Sophocles, and Euripides.

CLAS 484 ***Greek Orators*** (6 credits)
Prerequisite: CLAS 380 or equivalent. Readings in Greek from Demosthenes and other Attic orators.

CLAS 485 ***Greek Comedy*** (6 credits)
Prerequisite: CLAS 380 or equivalent. Readings in Greek from Aristophanes and Menander.

CLAS 486 ***Pindar*** (6 credits)
Prerequisite: CLAS 380 or equivalent. Readings in Greek from Pindar and the lyric poets.

CLAS 490 ***Roman Historians*** (6 credits)
Prerequisite: CLAS 390 or equivalent. Readings in Latin from Sallust, Livy, and Tacitus.

CLAS 491 ***Cicero*** (6 credits)
Prerequisite: CLAS 390 or equivalent. Readings in Latin from Cicero.

CLAS 492 ***Roman Poetry I*** (6 credits)
Prerequisite: CLAS 390 or equivalent. Readings in Latin from Horace and Virgil.

CLAS 493 ***Roman Poetry II*** (6 credits)
Prerequisite: CLAS 390 or equivalent. Readings in Latin from Ovid and Lucretius.

CLAS 495 ***Roman Comedy*** (3 credits)
Prerequisite: CLAS 390 or equivalent. Readings in Latin from Plautus and Terence.

CLAS 496 ***Latin Satire*** (3 credits)
Prerequisite: CLAS 390 or equivalent. Readings in Latin from Juvenal, Petronius, Persius, and Seneca.

CLAS 498 ***Advanced Topics in Classics*** (3 credits)

CLAS 499 ***Advanced Topics in Classics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.070 COMMUNICATION STUDIES

Faculty

Acting Chair
WILLIAM GILSDORF, *Professor*

Professors Emeriti
JOHN BUELL
MIROSLAV MALIK
JOHN E. O'BRIEN, s.j.

Professors
WILLIAM BUXTON
MARC GERVAIS, s.j.
GAIL VALASKAKIS

Associate Professors
MARTIN ALLOR
MAURICE CHARLAND
DENIS DINIACOPOULOS
W. LAMBERT GARDINER
RICHARD HANCOX
TILLY JANOWITZ-GECSEI
THOMAS KOVATS
NIKOS METALLINOS
DENNIS MURPHY
DONAT J. TADDEO

Assistant Professors
AMIR HASSANPOUR
CHANTAL NADEAU
LORNA ROTH
KIM SAWCHUK
PAUL THÉBERGE
HAL THWAITES

Lecturers
FRANCES LEEMING
NANCIE WIGHT

Location

Loyola Campus
Bryan Building, Room: BR 111
(514) 848-2555

Department Objectives

The Communication Studies Department takes a broad approach to the study of media and communication. The aim is to develop the student's appreciation of the role played by the mass media in society. With the emphasis on a humanistic value-oriented assessment, the programme is designed to develop both the critical faculties and creative potential of students.
Each programme has three components: a focus on humanities and liberal arts, a focus on social science and research, and a focus on creative laboratory work. These enable students to be thoroughly prepared for a wide range of career opportunities in the media industries, in public relations, and in government.

Facilities

The Department has two television studios equipped with colour videocassette recording and editing facilities, two 3/4" colour video portapak units, 9 x 16mm film units, 16mm sync and editing units, and complete super 8mm film units; photographic laboratories; a holographic and laser laboratory; multiple sound facilities; a research studio for the measurement of visual- and audio-information loads, an electronic and electro-mechanical programmer for multi-media use; and a Learning Centre with audio-slide film-video terminals for independent study.

Department Admission Requirements

The number of students that can be accommodated every year in our Department is physically limited by the room available in labs, the amount of equipment, and the number of professors. Approximately 120 students are admitted every year, giving a student population of about 300 in the three years of our undergraduate programme. Applications consistently outnumber the Department's capacity. For this reason, the Department of Communication Studies has a distinct admission procedure, in addition to the normal admission process of Concordia University.
The Department is prepared to receive applications as early as October. Interested candidates should obtain information about admission requirements of Communication Studies by contacting the Admissions Committee, Department of Communication Studies, Loyola Campus, Concordia University, 7141 Sherbrooke Street West, Montréal, Québec, H4B 1R6.

Graduate Work in Communication Studies
The Department also offers a one-year diploma programme for students who have completed their undergraduate degree in another field, and an MA in Media Studies for those with two years of media experience and academic work in Communications. A PhD in Communications is offered jointly with Université de Montréal and UQAM. For details, please refer to the School of Graduate Studies Calendar or contact the Department.

Programmes

Students are responsible for satisfying their particular degree requirements. The superscript indicates credit value.

The Department offers two programmes of study, and two others jointly with Journalism.

a) *BA, Specialization in Communication Studies:* consisting of 60 credits in Communication Studies and 30 credits from electives outside the Department.
b) *BA, Major in Communication Studies:* consisting of 42 credits in Communication Studies and 48 credits from electives outside the Department.
c) *BA, Specialization in Communication and Journalism:* consisting of 60 credits in Communication and Journalism courses and 30 credits from electives outside Communication and Journalism.
d) *BA, Specialization in Broadcast Journalism:* consisting of 60 credits in Communication and Journalism courses and 30 credits from electives outside Communication and Journalism.

Elective credits are understood as courses taken in other departments or Faculties of the University. Credits in Communication Studies or Journalism, or in Cinema (Faculty of Fine Arts) may not be used in lieu of electives.

200-level courses are normally taken in first year, 300-level courses in second year, 400-level courses in third year.

Written work may be required in English for courses in Journalism; please consult the Department.

Students are required to complete the appropriate entrance profile for entry into the programme (see §31.002 - Programmes and Admission Requirements - Profiles).

60 BA Specialization in Communication Studies
18 COMS 230[3], 240[3], 255[3], 275[3], 278[3], 284[3]
6-18 Chosen from courses in Cluster I*
24-36 Chosen from courses in Cluster II-V with at least three credits from each Cluster at the 300 or 400 level
**No more than one course from Cluster I may be done concurrently.*

42 BA Major in Communication Studies
18 COMS 230[3], 240[3], 255[3], 275[3], 278[3], 284[3]
6-12 Chosen from courses in Cluster I*
12-18 Chosen from courses in Cluster II-V with at least three credits from each Cluster at the 300 or 400 level
**No more than one course from Cluster I may be done concurrently.*

60 BA Specialization in Communication and Journalism
NOTE: Students must meet the admission requirements of both the Departments of Communication Studies and Journalism. This programme is designed to prepare graduates for the English-language media.
Stage I
9 JOUR 201[6]; COMS 240[3]
6 Chosen from COMS 275[3], 278[3], 284[3]
Stages II & III
9 JOUR 302[3], 303[3], 310[3]
6 JOUR 400[3], 446[3]
3 Chosen from JOUR 402[3], 404[3], 408[3], 415[3], 430[3]
6 Other Journalism credits - these may not be laboratory/workshop courses
21 Chosen from Communication Clusters I, III, IV, V, at the 300 or 400 level, with a maximum of six credits from Cluster I.

60 BA Specialization in Broadcast Journalism
NOTE: Students must meet the admission requirements of both the Departments of Communication Studies and Journalism. This programme is designed to prepare graduates for the English-language media.
Stage I
15 JOUR 201[6]; COMS 240[3], 278[3], 284[3]
3 Chosen from JOUR 205[3], 210[3], 215[3]
Stage II
12 JOUR 302[3], 306[3], 310[3], 343[3]
6 Chosen from COMS 378[6], 381[6], 387[6]
Stage III
6 JOUR 415[3], 446[3]
3 Chosen from JOUR 420[3] or 430[3]
15 Chosen from Communication Clusters III, IV, and V at the 300 or 400 level.

I. Laboratory

CLUSTERS:

COMS 275 Visual Dynamics I (3 credits)
COMS 278 Seminar and Practicum in Sound I (3 credits)
COMS 284 Seminar and Practicum in Film and Video I (3 credits)
COMS 374 Visual Dynamics II (6 credits)
COMS 375 Visual Dynamics III (6 credits)
COMS 378 Seminar and Practicum in Sound II (6 credits)
COMS 381 Seminar and Practicum in Film II (6 credits)
COMS 387 Seminar and Practicum in Television II (6 credits)
COMS 475 Visual Dynamics IV (6 credits)

	COMS 478	Seminar and Practicum in Sound III (6 credits)	**COMS 487**	Seminar and Practicum in Television III (6 credits)
	COMS 481	Seminar and Practicum in Film III (6 credits)	**COMS 490**	Communication Programming (6 credits)
II. Seminar/Practicum	**COMS 230**	Basic Writing for the Media (3 credits)	**COMS 355**	New Technology and Communication Media I (3 credits)
	COMS 255	Communication Analysis of Environment (3 credits)	**COMS 356**	New Technology and Communication Media II (3 credits)
	COMS 305	Advanced Scriptwriting for Film (6 credits)	**COMS 470**	Advertising and the Consumer Society (3 credits)
	COMS 330	Advanced Scriptwriting for Television (6 credits)	**COMS 471**	Public Relations: Principles and Problems (3 credits)
	COMS 351	Biocybernetic Research (6 credits)		
III. Media Study	**COMS 306**	Documentary Film (3 credits)	**COMS 316**	The Canadian Cinema (3 credits)
	COMS 307	Hollywood in the Silent Era (3 credits)	**COMS 317**	Film Studies (3 credits)
	COMS 308	The German Expressionist Movement (3 credits)	**COMS 320**	Media Styles, Modes, and Carriers (3 credits)
	COMS 309	The Revolutionary Soviet Cinema (3 credits)	**COMS 321**	History of Media Carriers (3 credits)
	COMS 310	The Hollywood Genres (3 credits)	**COMS 331**	Documentary Television (3 credits)
	COMS 311	The Classic French Cinema (3 credits)	**COMS 416**	Film Criticism (3 credits)
	COMS 312	La Nouvelle Vague (3 credits)	**COMS 417**	Film Ideas (3 credits)
	COMS 313	Ingmar Bergman and the Scandinavians (3 credits)	**COMS 435**	Documentary Film and Television Genres I (3 credits)
	COMS 314	The Italians, from Neo-Realism to Today (3 credits)	**COMS 436**	Documentary Film and Television Genres II (3 credits)
	COMS 315	Shakespeare in the Cinema (3 credits)		
IV. Media and Society	**COMS 352**	Broadcasting Policy in Canada (3 credits)	**COMS 454**	Communication Law and Administration I (3 credits)
	COMS 354	Children's Television (3 credits)	**COMS 455**	Communication Law and Administration II (3 credits)
	COMS 360	Mass Communication (3 credits)	**COMS 460**	Political Communication (3 credits)
	COMS 361	Seminar in Propaganda (3 credits)	**COMS 461**	Organizational Communication (3 credits)
	COMS 437	Seminar in Media Forecast (3 credits)	**COMS 468**	Theoretical Issues in Development Communications (3 credits)
	COMS 444	Television Aesthetics I (3 credits)	**COMS 469**	Media Applications to Participatory Development (3 credits)
	COMS 445	Television Aesthetics II (3 credits)		
V. Communication and Media Theory	**COMS 240**	Communication Theory (3 credits)	**COMS 366**	Interpersonal Communication and Cultural Context (3 credits)
	COMS 322	Media and Media Culture (3 credits)	**COMS 367**	Media and Cultural Context (3 credits)
	COMS 323	Media Theory (3 credits)	**COMS 368**	Media and Gender (3 credits)
	COMS 362	Psychology of Communication (3 credits)	**COMS 462**	Communication, Culture, and Popular Art (3 credits)
	COMS 364	Communication and the Canadian North (3 credits)	**COMS 463**	Semiotics (3 credits)

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

COMS 230 ***Basic Writing for the Media*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. This course is designed to provide knowledge of and practice in the special written forms and formats utilized by the media. Assignments are practically oriented towards possible student productions.

COMS 240 ***Communication Theory*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Through lectures, discussions, and selected readings from the works of key theoreticians, this course introduces students to major approaches to the understanding of the process of communication.

COMS 255 ***Communication Analysis of Environment*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. General and detailed analysis of various information complexes; e.g. museums, galleries, exhibitions, countrysides, landscapes, city streets, highways, department stores, churches, etc., from the point of information values used to influence future prospective audiences of films, television programmes, or exhibition and theatre visitors. The basic values of light, space, sound, picture, words, and exhibit structures are explored through individual student projects in real locations. Students work on individual projects under the supervision of the directing professor. Tutorial course.

COMS 275 ***Visual Dynamics I*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. In this course, students are led to discover fundamental laws which underlie visual representation. The overall method consists of basic experiments in vision and perception: to explore distances, planes, tones, colour, light, etc. Photography is the medium by which these experiments are recorded for observation and discussion. Lectures and laboratory: average six hours per week.

COMS 278 ***Seminar and Practicum in Sound I*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. This course is designed to provide the student with a basic working knowledge of audio systems both natural and electronic, to understand the various affective and psychological qualities of sound, and how sound may be structured into imaginative aural forms. Lectures and laboratory: average six hours per week.

COMS 284 ***Seminar and Practicum in Film and Video I*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. A practical approach to an understanding of the common elements of film and video media, and of the specific differences inherent in their effective use. Course methodology includes lectures, screenings, readings, portapak video, and super 8mm film productions. Lectures and laboratory: average six hours per week.

COMS 298 ***Selected Topics in Communication Studies*** (3 credits)

COMS 299 ***Selected Topics in Communication Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

COMS 305 ***Advanced Scriptwriting for Film*** (6 credits)
Prerequisite: Registration in a Communication Studies programme; submission of a qualifying assignment by July 1 and subsequent approval of instructor. This assignment, which varies from year to year, is intended to test the student's writing ability and creative imagination. A practical course in writing film-drama: story construction and plotting, scene-making, characterization and character development, dialogue, dramatic continuity, timing, pacing, rhythm, suspense, and creative criticality. Many of these fictional and dramatic techniques are, as the occasion arises, applied to non-fictional scripts as well. The method consists of lecture, discussion, demonstration, critique. Assignments are on-going.

COMS 306 ***Documentary Film*** (3 credits)
Prerequisite: 30 credits; open to all University students; written permission of the Department. A survey of the documentary film field from 1895 until today, with an examination of major styles (romantic, realistic, expressionistic, avant-garde, etc.) in the works of significant documentary filmmakers. The method consists of lecture, screenings, critique, and discussion.

NOTE: COMS 307 through 316 are offered on a three-year cycle.

COMS 307 ***Hollywood in the Silent Era*** (3 credits)
Prerequisite: 30 credits. In-depth study of the 60-year career of Chaplin, with special emphasis on the great early comics (Keaton, etc.); Hollywood and the birth of the movies: D.W. Griffith, von Stroheim.

COMS 308 ***The German Expressionist Movement*** (3 credits)
Prerequisite: 30 credits. Lang, Murnau, Pabst, etc., in Germany, and in their later Hollywood careers. The German cinema of the '20's; the Expressionists. Integration with the socio-cultural climate of the pre-Hitler days.

COMS 309 ***The Revolutionary Soviet Cinema*** (3 credits)
Prerequisite: 30 credits. The Soviet Formalists of the '20's: Eisenstein, Pudovkin, Dovzenko. Film and revolution; Marxist aesthetics. The later evolution of the Soviet cinema.

COMS 310 ***The Hollywood Genres*** (3 credits)
Prerequisite: 30 credits. Concentration on specific genres and directors of Hollywood in its golden era ('30's, '40's). The aesthetics of art and the mass audience.

COMS 311 ***The Classic French Cinema*** (3 credits)
Prerequisite: 30 credits. Before the Nouvelle Vague, the great French cinema of Renoir, Clair, Ophuls, Cocteau.

COMS 312 ***La Nouvelle Vague*** (3 credits)
Prerequisite: 30 credits. Truffaut, Godard, Chabrol, Resnais, etc., from their New-Wave days to the present. Bresson. The new cinema: consciousness, ideology, art.

COMS 313 ***Ingmar Bergman and the Scandinavians*** (3 credits)
Prerequisite: 30 credits. In-depth study of Bergman. The entire context, from the great silent period (Sjostrom, Stiller, etc.) to today (Widerberg, etc.).

COMS 314 ***The Italians, from Neo-Realism to Today*** (3 credits)
Prerequisite: 30 credits. The neo-realist movement; Rossellini, De Sica, Visconti, Fellini, Antonioni, Pasolini, Bertolucci, Wertmuller.

COMS 315 ***Shakespeare in the Cinema*** (3 credits)
Prerequisite: 30 credits. *Hamlet, Macbeth, Othello,* etc., as seen in the works of Welles, Olivier, the Russians. A study of the plays and their cinematic expressions: Shakespeare's world via cinema.

COMS 316 ***The Canadian Cinema*** (3 credits)
Prerequisite: 30 credits. The aesthetic, economic, socio-politico-cultural dimensions of feature films in Canada. Course conducted in collaboration with Canadian film directors, producers, actors, critics.

COMS 317 ***Film Studies*** (3 credits)
Prerequisite: 60 credits; written permission of the Department. A student may repeat one of the foregoing courses (307 to 316), provided that the content is different, by registering for credit under COMS 317.

Communication Studies students may take no more than six credits from the Department of Cinema or Department of Printmaking and Photography courses of the Faculty of Fine Arts.

COMS 320 ***Media Styles, Modes, and Carriers*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Selected segments from the history of painting, architecture, drama, music, related to their possible use in media productions, and to the contemporary philosophy of communication. Readings and viewings of major styles, artworks, and authors in a self-instructional, programmed course.

COMS 321 ***History of Media Carriers*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Selected segments from the history of photography, cinematography, radio, and television; media design related to the possible use in media productions and to the contemporary philosophy of communication. Readings and viewings of major styles, artworks, and authors in a self-instructional programmed course.

COMS 322 ***Media and Media Culture*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Media, and their impact on people and society, in order of historical appearance: literacy, printing, the still photograph, cinema, radio, television. The growth of the technologies of work, movement, education, thought, and social organization. The problems of the individual in a technological environment.
NOTE: Students who have received credit for COMS 304 may not take this course for credit.

COMS 323 ***Media Theory*** (3 credits)
Prerequisite: COMS 322. Analysis of the historical and current evidence in an attempt to understand what media are, what they do of themselves, their common characteristics, cumulative patterns, and necessary effects. Are there inherent "laws" of media? Emphasis is on the intellectual faculty as manifested in society's response to media.
NOTE: Students who have received credit for COMS 304 may not take this course for credit.

COMS 330 ***Advanced Scriptwriting for Television*** (6 credits)
Prerequisite: Registration in a Communication Studies programme; submission of a qualifying assignment by July 1 and subsequent approval of instructor. This assignment, which varies from year to year, is intended to test the student's writing ability and creative imagination. Anatomy of script; audio-visual components and functions; TV drama, comedy, documentary, docu-drama. The creative process: plot development, character and dialogue; uses of tension, conflict, "tricks of the trade"; professional attitude and discipline vis-à-vis the market. Lectures, demonstrations, group discussions, and script projects.

COMS 331 ***Documentary Television*** (3 credits)
Prerequisite: 30 credits; open to all University students; written permission of the Department. A survey of the documentary television field from its beginning until today, with an examination of characteristic styles and forms (informative, biographical, current events, compilative, etc.). The method consists of lecture, video example, critique, and discussions.

COMS 351 ***Biocybernetic Research*** (6 credits)
Prerequisite: COMS 255; written permission of the Department. An examination of the aids for information-impact measurements demonstrated on communication media carriers. Testing is conducted on information complexes previously analysed; e.g. photographs, advertisements, film segments, television programme sequences, exhibitions, urban environments, and open-country landscapes. The main emphasis of learning is on the methodology of tests, diagnoses, and interpretations of results for practical media productions. A biometrical and biotelemetrical approach is used for testing. Each student works on individual projects during the year. Tutorial course.
NOTE: Students who have received credit for COMS 350 may not take this course for credit.

COMS 352 ***Broadcasting Policy in Canada*** (3 credits)
Prerequisite: 30 credits; written permission of the Department. This course acquaints the student with the historical development of broadcasting and broadcasting legislation in Canada. It covers the present state of broadcasting policy in Canada, its goals and problems, and explores alternative solutions.
NOTE: Students who have received credit for COMS 467 may not take this course for credit.

COMS 354 ***Children's Television*** (3 credits)
Prerequisite: 30 credits; written permission of the Department. This course explores forms of communication that have developed between children and television. Topical areas include future policies and planning in the light of developmental needs, ethical parameters, and experiments in creative empowerment.

COMS 355 ***New Technology and Communication Media I*** (3 credits)
Prerequisite: COMS 275; COMS 278; COMS 284; written permission of the Department. This course examines the applications of computers in the field of communications from conceptual, theoretical, and practical perspectives. Analog and digital representation, transmission, storage, and processing of visual and aural information are discussed. Lectures and laboratory.

COMS 356 ***New Technology and Communication Media II*** (3 credits)
Prerequisite: COMS 355; written permission of the Department. This course examines more advanced concepts and techniques for the production of computer-generated colour video graphics; computer-generated sound; information input/retrieval networks; hypertext, hypermedia, other digital media, and interactive multi-media systems. Lectures and laboratory.

COMS 360 ***Mass Communication*** (3 credits)
The course examines the nature and forms of mass communication, the social sources and uses of mass communication, its psychology, audiences, and effects. The ethics of mass communication are also discussed. Through guest lecturers from the various media and readings of contemporary analyses/critiques, issues such as media ownership and access, government and self-regulation, technological implications, media accountability, etc., are raised.

COMS 361 ***Seminar in Propaganda*** (3 credits)
Prerequisite: 30 credits. The aim of this course is to recognize the orchestration of the elements of propaganda in media, and to develop the means to deal with it. Course methodology includes lectures, discussions, and projects.

COMS 362 ***Psychology of Communication*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. The objectives of the course are to provide the learner with: 1) an overview of psychological processes active in the communicative act; 2) the opportunity to explore a single media area in depth, either independently or in a small group. Through a variety of formats, topic areas such as the following are explored: perception and information processing, language development, areas of para-psychology related to communication, influences on attitude/behaviour, verbal/non-verbal codes, meaning, etc.

COMS 364 ***Communication and the Canadian North*** (3 credits)
Prerequisite: 30 credits; open only to students in Communication Studies programmes; written permission of the Department. The course examines the historical context of Eskimo-White interaction in the Arctic; the role that media technology has played in Northern development and social change; the current research and experimental approaches to communication problems in the Canadian North.

COMS 366 ***Interpersonal Communication and Cultural Context*** (3 credits)
Prerequisite: 30 credits; written permission of the Department. This course examines the

relationship between value orientations, social perception, self-concept, identity, and other culturally-determined phenomena, as well as verbal and non-verbal communication processes. It draws upon theory and research on communication between members of different cultures and sub-cultures.
NOTE: Students who have received credit for COMS 363 may not take this course for credit.

COMS 367 ***Media and Cultural Context*** (3 credits)
Prerequisite: 30 credits; written permission of the Department. This course examines the ways in which different cultures express themselves using print, film, radio, and television; the cultural content of media messages; the role of mass communication across cultural boundaries, as well as media representation of, and access by, cultural groups. The course utilizes screenings and case studies.
NOTE: Students who have received credit for COMS 363 may not take this course for credit.

COMS 368 ***Media and Gender*** (3 credits)
Prerequisite: 30 credits; written permission of the Department. This course investigates how sex and gender are represented in and by the media. The course examines sexuality, sexism, and theories of gender through a critical examination of contemporary media topics.
NOTE: Students who have received credit for this topic under a COMS 398 number may not take this course for credit.

COMS 374 ***Visual Dynamics II*** (6 credits)
Prerequisite: COMS 275; written permission of the Department. This course involves both theory and fieldwork in photographing human-created environments; e.g. the city, using natural light. The student acquires an understanding of the problems of distance and direction by means of lectures, critiques of fieldwork, and individual consultation.
NOTE: Students are required to possess certain recommended equipment.

COMS 375 ***Visual Dynamics III*** (6 credits)
Prerequisite: COMS 374; written permission of the Department. A study of the development of visual artifacts and media in the search for an increasingly adequate mimesis of persons, situations, and meanings. The course comprises both the practical and the theoretical aspects of the visual image, historically and currently, and examines the assumptions underlying the quest for the auto-communicative image. Lectures and laboratory: average six hours per week.

COMS 378 ***Seminar and Practicum in Sound II*** (6 credits)
Prerequisite: COMS 230; COMS 278; written permission of the Department. This course gives the student a knowledge of the basic disciplines necessary for constructing aural message forms from the simplest to the most complex; experience in the various technologies required to apply these aural forms to radio, film, television, etc. Students prepare, produce, and direct, individually and in teams, a number of projects. Lectures and laboratory: average six hours per week.

COMS 381 ***Seminar and Practicum in Film II*** (6 credits)
Prerequisite: Above-average standing in COMS 284; written permission of the Department. This course involves an examination of the communicative process through the medium of film. Areas covered include scripting, directing, and shooting, with both silent and sync-sound equipment. Productions are designed to test the student's theoretical knowledge and give practical experience in the craft of filmmaking. Lectures and laboratory: average six hours per week.

COMS 387 ***Seminar and Practicum in Television II*** (6 credits)
Prerequisite: COMS 284; written permission of the Department. A study of the components related to the creation of the television documentary and short-feature programme in terms of the theoretical possibilities inherent in the medium. Student productions in the two genres, from idea-stage through completed videotape, constitute the laboratory section of the course. Lectures and laboratory: average six hours per week.

COMS 398 ***Selected Topics in Communication Studies*** (3 credits)

COMS 399 ***Selected Topics in Communication Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

COMS 416 ***Film Criticism*** (3 credits)
Prerequisite: 60 credits; written permission of the Department. An introduction to the assumptions, methodologies, and vocabularies implicit in important schools of popular and academic film criticism.

COMS 417 ***Film Ideas*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Seminar using film criticism to focus on aesthetic/cultural dimension of present trend-setting films, and to explore students' sensibility in the context of contemporary culture. Methodology includes viewings, discussions, written critiques, critical/aesthetic readings.

COMS 435 ***Documentary Film and Television Genres I*** (3 credits)
Prerequisite: 30 credits in Communication

Studies. Survey of genres in documentary film and television such as: biographical, industrial, travelogue, nature, scientific, training, educational, children's films, and TV programmes. Examples from Canada, USA, Europe.

COMS 436 ***Documentary Film and Television Genres II*** (3 credits)
Prerequisite: COMS 435. An in-depth study of one of the film and television genres surveyed in COMS 435. Tutorial course.

COMS 437 ***Seminar in Media Forecast*** (3 credits)
Prerequisite: 60 credits. This course examines trends in film, sound, television, and other media for future applications. The course includes theory of media effects. Representatives from industry and government are invited to discuss future trends in media utilization. The course demands a theoretical and practical model for original or novel use of a medium or media mix.

COMS 444 ***Television Aesthetics I*** (3 credits)
Prerequisite: 30 credits; enrolment in a Communication Studies programme. This course involves the study and application of evaluative judgements and aesthetic principles appropriate to the television medium. It emphasizes the development of television criticism and aesthetics based on a synthesis of the fundamental image elements (light, colour, space, time, motion, and sound) together with an analysis of their interrelationship in the finished product: the television programme.

COMS 445 ***Television Aesthetics II*** (3 credits)
Prerequisite: COMS 444. This tutorial course is a continuation of COMS 444 for students who wish to do research and experimentation with specific aspects of television aesthetic principles. Assignments include a research paper derived from specific experimental television production units.

COMS 454 ***Communication Law and Administration I*** (3 credits)
Prerequisite: 30 credits; enrolment in a Communication Studies programme. This course focuses upon the legal and business aspects of the communications industry. Among the items covered are basic contract law, torts or delicts, libel and slander, and copyright laws. The legal relationships between the various parties involved in the field of communications, e.g. producer and writer are also analysed.

COMS 455 ***Communication Law and Administration II*** (3 credits)
Prerequisite: COMS 454. Studies of particular cases are chosen to illustrate specific problems and their resolutions. In-depth treatment is given to applications of areas developed in COMS 454.

COMS 460 ***Political Communication*** (3 credits)
Prerequisite: Written permission of the Department. The relationships between media institutions and political institutions, both in Canada and internationally, are examined. Issues such as: the flow of political information; the social and political construction of news; the politics of regulation; the politics of influence in campaigns, nation-building socialization through media; ideology in the media, and alternatives to traditional media are explored.
NOTE: Students who have received credit for COMS 465 may not take this course for credit.

COMS 461 ***Organizational Communication*** (3 credits)
Prerequisite: Written permission of the Department. The flow of communication within organizational and institutional structures is examined. Topics such as: communication function; patterns and networks; directionality; overload and underload; communication roles and expectations; and processes of organizing are explored. Discussion and field study are combined with readings for an emphasis on applied theory.
NOTE: Students who have received credit for COMS 465 may not take this course for credit.

COMS 462 ***Communication, Culture, and Popular Art*** (3 credits)
Prerequisite: 60 credits; written permission of the Department. An introduction to the social analysis of works of popular art. Cultural products such as television programmes, hit records, and popular novels are examined through techniques of textual analysis. Within the context of an examination of cultural theories, the course focuses on (1) critical methods based in the theory of rhetoric and (2) theories of mass culture and alienation.

COMS 463 ***Semiotics*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. This course provides a detailed introduction to the semiotics of communication. The course considers the formal characteristics of signs and codes and examines how signs or "texts" produce meaning. It focuses on three types of "texts": the advertisement, the news, and the fictional narrative. Central to this course is the notion that sign-systems are fundamental to the production of "knowledge" and ideology. The course proceeds through lectures, an analytical reading of assigned texts, and student discussion and presentations.

COMS 468 ***Theoretical Issues in Development Communications*** (3 credits)
Prerequisite: 60 credits; written permission of the Department. This seminar examines historical and current research on, and theoretical approaches to, the role media can

play in indigenous and international development.
NOTE: Students who have received credit for COMS 466 may not take this course for credit.

COMS 469 ***Media Applications to Participatory Development*** (3 credits)
Prerequisite: 60 credits; written permission of the Department. This seminar examines the impact and usefulness of appropriate media (film, television, community radio, interactive satellites, etc.) to indigenous and international development.
NOTE: Students who have received credit for COMS 466 may not take this course for credit.

COMS 470 ***Advertising and the Consumer Society*** (3 credits)
Prerequisite: Written permission of the Department; priority is given to students in Communication Studies programmes. Advertising as an economic force is examined from a mass-media focus. Communication strategies are analysed. A promotional campaign is prepared and presented as a team project.

COMS 471 ***Public Relations: Principles and Problems*** (3 credits)
Prerequisite: Written permission of the Department; priority is given to students in Communication Studies programmes. This course considers the principles and responsibilities of public relations, and critically examines specific P.R. problems and the choice of media in effecting solutions.

COMS 475 ***Visual Dynamics IV*** (6 credits)
Prerequisite: COMS 375; written permission of the Department. Developing the visual imagination: conceiving and organizing ideas for expression through media, such as print, film, television. Each student is asked to conceive a "story" (an integrated narrative), and to determine its most appropriate visual presentation (emphasizing the story's significance and maintaining overall unity). Three presentational modes are considered: a) the controlled sequence; b) the randomly perceived message; c) the pictorial symbol. Lectures and laboratory: average six hours per week.

COMS 478 ***Seminar and Practicum in Sound III*** (6 credits)
Prerequisite: COMS 378; written permission of the Department. Conceptual and practical study of the temporal and spatial structure of synthetic sound. Control of the fine and coarse structure of the volume, pitch and timbre of synthesized sound. Lectures and production projects are designed to give the student a broad acquaintance with the current concepts and techniques in electronic sound production. Lectures and laboratory.

COMS 481 ***Seminar and Practicum in Film III*** (6 credits)
Prerequisite: Above-average standing in COMS 381; written permission of the Department. An advanced course in film theory and communication. Filmmaking processes covered include scripting, directing, "A and B roll" editing, and shooting with crystal sync-sound equipment. Lectures and laboratory: average six hours per week.

COMS 487 ***Seminar and Practicum in Television III*** (6 credits)
Prerequisite: Above-average standing in COMS 387; written permission of the Department. An advanced course in television theory and communication. Possible options, depending on the ability of the students in any one year, include the dramatic documentary and the complete adaptation for television of professional plays. Lectures and laboratory: average six hours per week.

COMS 490 ***Communication Programming*** (6 credits)
Prerequisite: COMS 255; COMS 351. This course studies the interaction among several media, e.g. film, sound, television, static 2D and 3D image. Special attention is given to application in the areas of displays, exhibitions, entertainment endeavours, multi-media shows, where more than one medium is used in one coherent programme.

COMS 496 ***Honours Project I*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Towards the end of their second year, students enrolled in a Communication Studies programme who have demonstrated scholarly and creative ability may be selected for major research or production in a communications area of special interest. During the third year, individually or in teams, the project is realized in close collaboration with faculty directors.
NOTE: Students who have received credit for COMS 495 may not take this course for credit.

COMS 497 ***Honours Project II*** (3 credits)
Prerequisite: Open only to students in Communication Studies programmes.
NOTE: Students who have received credit for COMS 496 may register for COMS 497.

COMS 498 ***Advanced Topics in Communication Studies*** (3 credits)

COMS 499 ***Advanced Topics in Communication Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.080 ECONOMICS

Faculty

Chair
JOHN W. O'BRIEN, *Professor*

Associate Chair
BALBIR S. SAHNI, *Associate Professor*

Professors
JALEEL AHMAD
SYED AHSAN
JON BRESLAW
GORDON FISHER
FRANK HAYES
IAN IRVINE
JAMES McINTOSH
FRANK MÜLLER
MORTON STELCNER

Adjunct Professor
ADELBERT LALLIER

Associate Professors
SHAFIQ ALVI
ANASTAS ANASTASOPOULOS
CHRISTIAN BELZIL
BRYAN CAMPBELL
NURAL ISLAM
M. GREGORY LEBLANC
ZENG RUNG LIU
DAN OTCHERE
MICHAEL SAMPSON
ECKHARD SIGGEL
WILLIAM M.A. SIMS
AKIRA TAKAHASHI

Assistant Professor
PADMA RAO-SAHIB

Lecturer
TRACEY BELCOURT

Location

Loyola Campus
Centennial Building, 3rd Floor

Sir George Williams Campus
Annex GM, Room: 302-7
(514) 848-3900

Department Objectives

The Department aims to educate students in economics, both at the graduate and undergraduate level, and to contribute to the advancement of the discipline through research and teaching. Economists study the production, distribution, and consumption of goods and services – essential knowledge for today's business people and policy makers. Blending both theory and practical applications, the Department of Economics serves students preparing for related specialized professions (Honours, Specialization, Co-operative) as well as those interested in a generalized understanding of the discipline (Major, Minor programmes).

Programmes

Students are responsible for satisfying their particular degree requirements.
Students must apply to the departmental Honours adviser for formal admission to the Honours programme. The application is usually made after completion of the first-year courses.
The superscript indicates credit value.

NOTE: Calculus I is a prerequisite for many Economics courses. Students who have not taken MATH 209 or equivalent must take it as an elective within their first 15 credits.

BA DEGREE PROGRAMMES IN ECONOMICS

60 BA Honours in Economics

Stage I
6 *ECON 201[3], 203[3]
6 **ECON 221[3], 222[3]

Stage II
6 ECON 301[3], 302[3]
6 ECON 303[3], 304[3]
6 ECON 325[3], 326[3]
3 ECON 324[3]
3 Chosen from ECON 318[3], 319[3]

Stage III
6 ECON 401[3], 403[3]
6 ECON 421[3], 422[3]
12 400-level ECON elective credits

60 BA Specialization in Economics

Stage I
6 *ECON 201[3], 203[3]
6 **ECON 221[3], 222[3]

Stage II
6 ECON 301[3], 302[3]
6 ECON 303[3], 304[3]
3 Chosen from ECON 318[3], 319[3]
6 ECON 324[3], 325[3]
3 ECON elective credits

Stage III
3 ECON 423[3]
21 400-level ECON elective credits

42 BA Major in Economics

Stage I

6 *ECON 201[3], 203[3]

6 **ECON 221[3], 222[3]

Stage II

6 ECON 301[3], 302[3]

6 ECON 303[3], 304[3]

3 Chosen from ECON 318[3], 319[3], 324[3]

3 ECON elective credits

Stage III

12 400-level ECON credits

30 Minor in Economics

Stage I

6 *ECON 201[3], 203[3]

Stage II

6 ECON 318[3], 319[3]

6 ECON elective credits

Stage III

12 ECON elective credits

**Students exempted from ECON 201 and/or 203 are required to replace these courses with ECON elective credits.*

***Any equivalent six credits satisfy this component of the programme. See §200.7.*

BCOMM DEGREE PROGRAMMES IN ECONOMICS

BComm Honours in Economics
BComm Major in Economics
(See §61.60)

BUSINESS STUDIES

Certificate in Business Studies
Minor in Business Studies
(See §61.140)

Economics Co-operative Programme

Director
BALBIR S. SAHNI, *Associate Professor*

The Economics Co-operative programme is offered to students who are enrolled in the BA Honours or Specialization in Economics. Students interested in applying for the Economics co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular programme, but six Study terms are interspersed with four Work terms.

Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Economics co-op committee, which includes the student's advisers.

Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

ECON 200 ***Introductory Economics*** (6 credits)

This course is designed primarily for students not majoring in Economics or Commerce, but who wish to have an introduction to economics and the Canadian economy. Its content is essentially the same as that of ECON 201 and ECON 203. However, there is greater emphasis on the economic environment of the firm, and the use of elementary tools of analysis to study Canadian economic institutions, government economic policies, and current economic issues.

NOTE: Students who have received credit or exemption for ECON 201 and/or 203, or equivalent, may not take this course for credit.

ECON 201 ***Introduction to Microeconomics*** (3 credits)

Introduction to the functioning of the market system; concepts of supply and demand, the role of prices in resource allocation; production decisions by firms. Analysis of differences between competition and monopoly, and the implications for economic efficiency; theories of labour markets and wage determination.

NOTE: Students who have received credit or exemption for ECON 200 may not take this course for credit.

ECON 203 ***Introduction to Macroeconomics*** (3 credits)

An introductory analysis of aggregate economic activity. The focus is on the principles of determination of the level of employment, national income, real output, inflation, and international balance of payments. The course also analyses the principles which govern trade relations among countries. These topics are integrated by a discussion of government monetary and fiscal policies to stabilize economic activity.

NOTE: Students who have received credit or exemption for ECON 200 may not take this course for credit.

ECON 221 ***Statistical Methods I*** (3 credits)
Prerequisite: CEGEP Mathematics 311 or MATH 201. Elementary probability, permutations and combinations, binomial and normal distribution. Analysis and organization of statistical data. Tests of hypotheses. Confidence limits. Introduction into linear regression and correlation. *NOTE See §200.7*

ECON 222 ***Statistical Methods II*** (3 credits)
Prerequisite: ECON 221; MATH 209; or equivalent. The course is an introduction to the application of statistical techniques to economic data. Topics discussed include, among others, time series, statistical inference, analysis of variance, correlation and regression.
NOTE See §200.7

ECON 251 ***Introduction to Economic History I: Economic Crisis and Recovery in Western Europe, 1300-1600*** (3 credits)
An economic analysis of the economic downturn of the fourteenth century in Western Europe and the recovery which followed. Discussion centres upon England and France. Economic theory at a very simple level is used to assess the problem of economic development and growth within the context of the changing institutional constraints.
NOTE: Students who have received credit for ECON 250 may not take this course for credit.

ECON 252 ***Introduction to Economic History II: Sustained Economic Development and Growth: Western Europe, After 1600*** (3 credits)
The economic reasoning underlying humanity's first venture into sustained growth and development is presented. This involves a discussion of the agricultural and industrial revolutions which took place in Western Europe and of the regional disparities which developed, such as between England, France, and Holland. Simple economic theory is used to aid in the analysis.
NOTE: Students who have received credit for ECON 250 may not take this course for credit.

ECON 298 ***Selected Topics in Economics*** (3 credits)

ECON 299 ***Selected Topics in Economics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ECON 301 ***Intermediate Microeconomic Theory I*** (3 credits)
Prerequisite: ECON 201, 203; MATH 209 or equivalent. Theory and measurement of demand, theory of consumer behaviour, production, theory of the firm, and cost and revenue analysis.

ECON 302 ***Intermediate Microeconomic Theory II*** (3 credits)
Prerequisite: ECON 301. Market structures (perfect competition, monopoly, oligopoly), industrial concentration, factor markets, income distribution, economic efficiency, general equilibrium, welfare economics.

ECON 303 ***Intermediate Macroeconomic Theory I*** (3 credits)
Prerequisite: ECON 201, 203; MATH 209 or equivalent. This course deals with the major areas of aggregate economics. Topics include the definitions and measurements of indicators of economic activity; the classical, Keynesian, and rational expectations models of the economy; the derivation of the AS schedule, the ISLM approach to the AD schedule; role of macroeconomic policy.

ECON 304 ***Intermediate Macroeconomic Theory II*** (3 credits)
Prerequisite: ECON 303. Review of the complete Keynesian system: role of investment demand, the consumption function, the demand for money function. Other topics include the open economy models of income determination, interest rates and exchange rates, business cycles, economic growth, macroeconomic policy, and their application to Canada.

ECON 311 ***Economic Development*** (3 credits)
Prerequisite: ECON 201, 203. The course investigates comparative economic development, with special attention to problems of capital formation, population growth, quality of labour force, and social and cultural attitudes towards economic modernization. Theories of economic development are evaluated in the context of the realities of historical patterns and the varying degrees of ability to achieve modernization.

ECON 315 ***The Economic Development of Québec*** (3 credits)
Prerequisite: ECON 201, 203. This course reviews past and present trends in the economic development of Québec. Emphasis is placed on the economic growth of Québec since the Second World War. Attention is given to the regional aspects of Québec's growth problems.

ECON 318 ***Domestic Economic Policy and Institutions*** (3 credits)
Prerequisite: ECON 201, 203. This course focuses on economic policies and institutions related to contemporary issues in the domestic economy. It is guided by the application of economic principles to such issues as regional disparities, income distribution and inequality, intra-provincial trade, social security policies, welfare programmes, foreign ownership and control, competition policy, government regulation of business, unemployment, inflation, and environmental policy.
NOTE: Students who have received credit for ECON 316 may not take this course for credit.

ECON 319 ***International Economic Policy and Institutions*** (3 credits)
Prerequisite: ECON 201, 203. This course focuses on economic policies and institutions related to issues such as protectionism, regionalism, and globalization. Selected topics in exchange rate and currency convertibility, liberalization of economic systems, and international economic development are also covered.
NOTE: Students who have received credit for ECON 317 may not take this course for credit.

ECON 324 ***Economic Data Analysis*** (3 credits)
Prerequisite: ECON 201, 203; enrolment in the Honours, Specialization, or Major programmes in Economics. The objective of this course is to familiarize students with the techniques of data retrieval, manipulation, and analysis. Particular emphasis is placed on the CANSIM retrieval system, database programmes, spreadsheet analysis, and statistical packages.
NOTE: Students who have received credit for ECON 323 may not take this course for credit.

ECON 325 ***Mathematics for Economists I*** (3 credits)
Prerequisite: ECON 201, 203; MATH 209 or equivalent. This course introduces students to core topics in algebra and optimization techniques. The topics covered include vector spaces and linear transformations; matrix operations; characteristic values and vectors; matrix differentiation. In addition, the course covers a review of constrained and unconstrained optimization with economic applications; Taylor series representation, implicit function theorem, and related topics.

ECON 326 ***Mathematics for Economists II*** (3 credits)
Prerequisite: ECON 325. This course covers more advanced topics in optimization methods and introduces students to techniques in economics dynamics, as well as applications of integration. Topics include quadratic forms and second-order conditions, Kuhn-Tucker theory, the maximum principle, difference and differential equations, discounting and the rudiments of probability theory.

ECON 331 ***Money and Banking*** (3 credits)
Prerequisite: ECON 201, 203. Overview of a monetary economy: nature, forms, and the economic role of money. Monetary standards: markets, prices, and the value of money; the payments system; financial markets. Determinants of size and distribution of wealth portfolios. Supply of money: measure, composition, and size determination. The economic role of commercial banks and non-bank financial intermediaries. Central banking and monetary policy. The international monetary system. (Topics covered within the Canadian banking institutional framework.)

ECON 335 ***Public Sector Economics: Expenditures*** (3 credits)
Prerequisite: ECON 201, 203. This course examines government fiscal activity within the context of a free-market system. Rationale for public-sector activity is reviewed in terms of economic efficiency conditions and the market failures. Among the topics covered in the course are growth of public spending, the concept of public good externalities, collective decision-making process, pure theory of public expenditures, local expenditures analysis, and efficiency in public spending, with special reference to Québec and Canada.

ECON 336 ***Public Sector Economics: Taxation*** (3 credits)
Prerequisite: ECON 201, 203. The principal purpose of this course is to examine and evaluate the important elements of the Canadian fiscal structure, emphasizing taxation and the financing of public expenditures. Among others, issues in taxation of income, both at the individual and corporate levels, excise and sales taxation, taxation of capital gains and wealth, intergovernmental fiscal relations, and tax reform are taken up.
NOTE: Accountancy Major students may not take this course for credit.

ECON 351 ***Economic History of Canada*** (6 credits)
Prerequisite: ECON 201, 203. This course is designed to introduce the student to Canadian economic development from the early period of settlement to the present day. Emphasis is placed on the economic history of Canada since Confederation.

ECON 352 ***Economic History of the U.S.A.*** (6 credits)
Prerequisite: ECON 201, 203. American economic history is presented from the viewpoint of the "new" economic history. This is a topical approach in which formal economics is used to evaluate traditional historical material. Among the topics covered are the economic consequences of slavery, the American business cycle, the development of American central banking, the merger movements, the causes of the American "take-off", and the economic causes and consequences of the major wars.

ECON 353 ***Economic History of Europe*** (6 credits)
Prerequisite: ECON 201, 203. The course explores the causes and consequences of the British industrial revolution and its diffusion to the Continent, in terms of differential national-growth patterns, and social problems associated with economic change. It includes an analysis of free trade, economic nationalism, the new imperialism, the importance of the crisis of 1929, in terms of economic organization, thought, and policy. Post-World War II reorganization, in terms of planning the welfare state, and economic integration.

ECON 361 ***Industrial Organization*** (3 credits)
Prerequisite: ECON 201, 203. This course develops the relationship of the firm to various forms of market structure. The course focuses on the objectives of the corporation, corporate interdependence, and the government control of industry. A study of policy matters centres on anti-trust and corporate regulation, with respect to both the legislative and economic aspects.

ECON 362 ***Economics of the Firm*** (3 credits)
Prerequisite: ECON 201; ECON 222 or DESC 244. This course stresses the application of economic principles and methodologies to the decision-making process of the firm, with an emphasis on the role of risk and uncertainty. Topics include decision-making criteria, demand analysis and estimation, cost analysis and estimation, pricing theory under various market structures, applied topics in pricing, and the impact of government on the firm. This course is primarily of interest to Commerce students, but is open to others as well.

ECON 363 ***Economics of Technological Change*** (3 credits)
Prerequisite: ECON 201, 203. This course deals with a critical analysis of the technological constraints on economic processes, research and development, and the economic factors affecting the rate and direction of technological change. Topics include the economic implications of learning by doing and technical systems; microeconomic effects of innovation and adoption theory; and the long-term macroeconomic policy implications of technological change.

ECON 370 ***Comparative Economic Systems*** (6 credits)
Prerequisite: ECON 201, 203. A comparative study of contemporary economic systems. While mainly concerned with the institutional features of contemporary free-market economics, the course also deals with their counterparts: the systems of a command economy and a socialist market economy. Of primary interest are the institutions, mechanisms, and policies which govern allocation, efficiency, growth, and distribution of income, with emphasis on the historical background of the institutions and the social, political, and ideological influences which continue to shape them.

ECON 375 ***The Soviet Economy*** (3 credits)
Prerequisite: ECON 201, 203. The evolution of the Soviet economic system and the policy measures adopted to deal with the problems of establishing and consolidating a socialist state. Special attention is given to Lenin's role in the early phase of the Soviet system, and early economic measures, such as the collectivization of farms. Other topics covered are: the nature of economic planning and progress under Stalin, and the important recent reforms and modifications of the Soviet system under the impact of Liberman's proposals.

ECON 377 ***The Chinese Economy*** (3 credits)
Prerequisite: ECON 201, 203. This course is devoted to an analysis of Chinese economic development since 1949. Topics include performance and efficiency, strategy for development, agricultural organization, the contribution of policy to economic growth, the industrial sector, control and allocation of resources, national economic planning.

ECON 381 ***Labour Economics I*** (3 credits)
Prerequisite: ECON 201, 203. The general objective of this course is to acquaint the student with various theoretical and empirical issues in the area of labour economics. Particular emphasis is placed upon the relation between theoretical frameworks and their empirical counterparts in Canada. Topics include the theory of wage determination, the effects of minimum wages, human capital theory, the economics of discrimination, and the economics of the household.

ECON 382 ***Industrial Relations I*** (3 credits)
Prerequisite: ECON 201, 203. A study of the general and practical problems that arise in the labour field, such as collective bargaining, the legal framework for the settlement of industrial disputes, the weapons of industrial conflict; the labour movement; contemporary labour issues, such as automation, cost-push inflation, and structural employment.

ECON 386 ***Economics of Human Resources*** (3 credits)
Prerequisite: ECON 201, 203. A study of recent contributions by economists to the understanding of and solution to social problems which society currently faces in the areas of crime, health, education, and welfare. In addition, specific federal and provincial governmental policies in these areas are analysed with the standard tools of economics.

ECON 387 ***Labour Law*** (6 credits)
Prerequisite: ECON 201, 203. The development of the trade union movement and early labour legislation in the U.S.A. and Canada; collective bargaining; labour law in Canada and Québec today, with emphasis on the Industrial Relations and Disputes Investigations Act (Canada), the Québec Labour Code, and related statutes. An in-depth study of employer's free speech; evocation in matters of arbitration awards; injunctions; successor rights. Practice and procedure before the courts, and labour relations boards and commissions.

ECON 391 ***Economics of the Environment*** (3 credits)
Prerequisite: ECON 201, 203. The subject of this course is environmental quality. It proceeds

through an analysis of the relationships among the natural environment, economics, and institutions. The objective is to depict the problem of environmental quality as an economic problem whose solution demands major changes in economic, political, and legal institutions. Attention is also given to policies of collective environmental actions in which the effective management of common property resources is discussed. The course concludes with a discussion of some broader issues, such as the consistency of improved environmental quality with continued economic and population growth.

ECON 392 ***Urban Economics*** (3 credits)
Prerequisite: ECON 201, 203. This course focuses on the basic issues of economic growth and stagnation, urban land use, the problems of the urban public economy, and special urban problems, such as transportation, congestion, poverty, housing, urban renewal, and zoning.

ECON 393 ***Economics of Uncertainty*** (3 credits)
Prerequisite: ECON 201, 203, 222. This course focuses on the basic rules governing the application of statistical concepts such as means, variances, covariances, to the economic aspects of the problem of uncertainty. Applications in microeconomic analysis include economic aspects of insurance as well as issues in finance such as portfolio selection, efficient markets, and the capital-asset pricing models. Applications in macroeconomics include the analysis of business cycles and problems associated with the characterization of expectations as in models of inflation.
NOTE: Students who have received credit for this topic under an ECON 398 number may not take this course for credit.

ECON 396 ***Natural Resource Economics*** (3 credits)
Prerequisite: ECON 201, 203. This course focuses on the problems of the finiteness of the natural resources base in Canada and in the world, and on an analysis of the demand for and supply of natural resources and energy. The course also discusses the economic aspects of a selected group of conservation measures (financial incentives, reallocation of property rights, regulation).

ECON 397 ***Economics of Discrimination*** (3 credits)
Prerequisite: ECON 201, 203. The purpose of this course is to examine some economic issues of discrimination, with particular reference to women in a Canadian context. Among the topics so examined are techniques for measuring discrimination and poverty, review of empirical studies, traditional and radical approaches to the study of discrimination, and policies to combat discrimination and poverty.

ECON 398 ***Selected Topics in Economics*** (3 credits)

ECON 399 ***Selected Topics in Economics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ECON 401 ***Advanced Microeconomic Theory*** (3 credits)
Prerequisite: ECON 302, 326. Selected topics in microeconomic analysis including methodology, general equilibrium analysis, welfare economics; theory of the firm, factor pricing, and income distribution capital theory. Primarily for Major, Specialization, and Honours students.

ECON 403 ***Advanced Macroeconomic Theory*** (3 credits)
Prerequisite: ECON 304, 326. Selected topics in macroeconomic analysis including construction of models of the economy encompassing the labour, product, and financial markets; the role of monetary and fiscal policies; classical, Keynesian, and post-Keynesian models. Primarily for Major, Specialization, and Honours students.

ECON 405 ***Welfare Theory*** (3 credits)
Prerequisite: ECON 302, 304. This is an advanced course intended primarily for Honours students. The course is devoted to an examination of selected topics in contemporary welfare economics and its applications.

ECON 408 ***History of Economic Thought*** (6 credits)
Prerequisite: ECON 302, 304. This course traces the development of economic analysis from the time of the scholastics to modern times. It also includes a description of the prevailing economic, social, and cultural environment in which economists have written. Primarily for Major, Specialization, and Honours students.

ECON 413 ***Economic Growth and Fluctuations*** (3 credits)
Prerequisite: ECON 304. A review of some theories of causes of economic fluctuations. Discussion of the economic climate and of stabilization policies.

ECON 414 ***Economic Development: Policy Analysis*** (3 credits)
Prerequisite: ECON 302, 304. This course offers an advanced treatment of selected topics related to issues in economic development. Particular emphasis is placed on models of growth and structural change, such as the two-gap model, input-output analysis, and computable general equilibrium models. Trade and industrial policies, fiscal and financial policies, as well as public-sector policies including taxation, spending, and cost-benefit

analysis are also discussed.
NOTE: Students who have received credit for ECON 312 or 411 may not take this course for credit.

ECON 421 ***Econometrics I*** (3 credits)
Prerequisite: ECON 222, 326. This course develops the simple and multiple classical regression models. The problems of mis-specified structures, multi-collinearity, and forecasting are also presented.

ECON 422 ***Econometrics II*** (3 credits)
Prerequisite: ECON 421. This course is a continuation of ECON 421. It deals with the problems of random-error correlation, stochastic regressors, and the simulation and the estimation of multiple-equation models.

ECON 423 ***Applied Econometrics*** (3 credits)
Prerequisite: ECON 302, 304, 324, 325. This course is designed to enable students to apply econometric techniques through computer analysis of case studies in model building. Topics include the analysis of aggregate consumption, construction of price indices, the estimation of production and expenditure functions, estimation and forecasting with univariate time series processes, an application with discrete dependent variables.

ECON 425 ***Mathematics for Advanced Study in Economics*** (3 credits)
Prerequisite: ECON 302, 304, 326. This course gives students the requisite mathematical background for graduate studies in economics. Topics include algebraic methods, and static and dynamic optimization techniques needed for the study of economic theory and econometrics. Difference and differential equations are also examined.

ECON 428 ***Optimization Techniques*** (3 credits)
Prerequisite: ECON 302, 304, 326. This is an advanced course for Honours students, and for Specialization and Major students with the consent of the Department. Topics include linear programming and input-output analysis; basic concepts and solutions of linear programming, its application to optimum resources allocation; exposition of basic inter-industry theory within the framework of input-output techniques; its applications to structural analysis.
NOTE: Only three credits will be awarded from ECON 428 and DESC 416.

ECON 432 ***Advanced Monetary Theory*** (3 credits)
Prerequisite: ECON 302, 304, 331. The nature of the monetarist-Keynesian controversy and critical appraisal of the IS-LM-AS model. Special topics: theory and evidence of term structure of interest rates, post-Keynesian demand for and supply of money in aggregative and disaggregative economic models. Theory of macroeconomic policy. Transmission mechanisms, policy coordination, lags, international constraints, and other problems.

ECON 435 ***Advanced Public Finance*** (3 credits)
Prerequisite: ECON 302, 304. In this course, several key areas in public finance are dealt with in depth. Topics covered are selected from the following: public goods and externalities, cost-benefit analysis, pricing policy of public enterprises, structure of commodity taxation, structure of income taxation, issues in tax reform, and intergovernmental fiscal relations.

ECON 442 ***International Economics: Trade Theory*** (3 credits)
Prerequisite: ECON 302. The basis of international trade, gains from trade, factor-price equalization, the tariff, Canadian commercial policy, trade and development, economic integration.

ECON 443 ***International Economics: Finance*** (3 credits)
Prerequisite: ECON 304. International monetary economics, foreign exchange markets, adjustment mechanisms, capital flows, balance of payments and domestic policy goals, international liquidity.

ECON 450 ***Advanced Economic History*** (3 credits)
Prerequisite: ECON 222, 302, 304. Advanced topics in economic history, with emphasis on the application of economic theory to specific historical questions.

ECON 461 ***Industrial Organization*** (3 credits)
Prerequisite: ECON 222, 302. This course examines departures from the perfect competition paradigm to analyse economic behaviour in an industrial setting. An industry consists of a number of firms which interact strategically to maximize their profits. Topics addressed include measures of market structure, theories of oligopoly, effects of potential entry, product differentiation and advertising, technological change, vertical integration, and monopoly and merger issues.

ECON 462 ***The Corporate Economy*** (3 credits)
Prerequisite: ECON 302. This course investigates the nature and behaviour of the firm. Economic rationalizations are presented for organizing production within a firm. The economic effects of various organization structures are examined. Topics addressed include team production, contractual models of the firm, principal-agent theory, tournaments, and the relationship between managers, shareholders, and the outside market.

ECON 463 ***Economics of Regulation*** (3 credits)
Prerequisite: ECON 302. This course is devoted to an examination of the economic aspects of governmental regulations. Besides a critical review of the economic theories of regulation, the spectrum of the existing regulatory network, and empirical investigations aimed at discerning cost-benefits, the course focuses on the process of regulatory reforms in all aspects of the Canadian economy.

ECON 473 ***Economics of Socialism*** (3 credits)
Prerequisite: ECON 302. This course analyses the theoretical aspects of various types of socialist economies: market, centrally planned, and worker-managed. Definitions and models of the various forms are developed and compared with a capitalist model and with existing socialist economies such as those of Cuba, China, Yugoslavia, and the U.S.S.R.

ECON 476 ***Marxist Economics*** (3 credits)
Prerequisite: ECON 302, 304 or 370. A general survey of Marxist theory, including historical and dialectical materialism. Marx's microeconomics: labour theory of value and its classical predecessors; theory of exploitation and the Iron Law of Wages; transformation problem and price theory. Marx's macroeconomics: business cycles and the theory of capitalist development; crises and the breakdown of capitalism. Contemporary Marxism and the question of the withering away of the state.

ECON 481 ***Labour Economics II*** (3 credits)
Prerequisite: ECON 302, 304, 381. Advanced topics in labour economics with special emphasis on labour-market problems and policies in Canada. Topics include the theory of work-leisure choice, mobility and immigration, unemployment and unfilled vacancies, income distribution, labour-market information and the wage-price relationship.

ECON 482 ***Advanced Industrial Relations*** (3 credits)
Prerequisite: ECON 302, 304. This course covers an advanced treatment of policy issues related to the human and industrial relations system in Canada. Topics covered include functional income distribution, conflict resolution in Canada and selected countries, trade agreements and labour relations, union response to technology; the social contract and concession bargaining; and industrial democracy and the quality of work life. Labour-management experiences of other countries are used as basis for comparison.
NOTE: Students who have received credit for ECON 383 or 498D may not take this course for credit.

ECON 491 ***Advanced Environmental Economics*** (3 credits)
Prerequisite: ECON 302, 326. The course deals with the economics of the management and use of environmental resources. The course focuses primarily on two aspects of the environmental issues: 1) the economic rationale of government policies and 2) programmes for environmental protection such as taxation, pollution, property rights, emission permits, public goods, conservation, sustainable development, evaluation of environmental damage, and environmental ethics.

ECON 493 ***Regional Economics*** (3 credits)
Prerequisite: ECON 302, 304. This course introduces the student to the methods and techniques of regional economic analysis, and their application to the problems of regional economies within Canada. Among the microeconomic topics covered are the location behaviour of firms and households, and the factors determining the allocation of land among alternative competing uses. Macroeconomic topics include the measurement and analysis of regional income and growth levels, cyclical changes in those levels, and interregional differences in growth rates. Policy problems pertinent to Canadian regions are stressed throughout the course.

ECON 495 ***Economics of Transportation and Communications*** (3 credits)
Prerequisite: ECON 302. Congestion problems and solutions, pricing, costs, demand, and regulation in transportation. Some applications to communications.

ECON 497 ***Income Distribution and Economic Inequality*** (3 credits)
Prerequisite: ECON 302, 304. This course presents a survey of the problems involved in measuring and explaining the distribution of economic resources among individuals and families. The course deals with such questions as: Why are some people economically better off than others? What, if anything, can or should be done about this state of affairs? Topics covered include meaning and measurement of inequality; the distribution of income and wealth and the role of bequests; discrimination and sociological factors; poverty, income maintenance, and government policy in Canada.

ECON 498 ***Advanced Topics in Economics*** (3 credits)

ECON 499 ***Advanced Topics in Economics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.090 EDUCATION

Faculty

Chair
RICHARD F. SCHMID, *Associate Professor*

Professor Emeritus
HAROLD ENTWISTLE

Professors
PHILIP ABRAMI
JON BAGGALEY
ROBERT BERNARD
JITENDRA K. BHATNAGAR
GARY BOYD
GARY O. COLDEVIN
ELLEN JACOBS
PARKER D. MITCHELL
RONALD A. SMITH

Associate Professors
JOYCE BARAKETT
LOIS J. BARON
BETTE CHAMBERS
DENNIS J. DICKS
MONA FARRELL
GEOFFREY FIDLER
ARPI HAMALIAN
NINA HOWE
WILLIAM C. KNITTER
STEVEN SHAW
MARIELA TOVAR
SANDRA WEBER

Research Associate Professor
AILIE CLEGHORN

Assistant Professors
PAUL BOUCHARD
MIRANDA D'AMICO
LARRY PROCHNER
GINA SILAUSKAS-WALKER

Lecturers
RIVA HEFT
SARA WEINBERG
DAVID WELLS

Location

Sir George Williams Campus
J.W. McConnell Building, Room: LB 579
(514) 848-2004

Department Objectives

The mission of the Department of Education is to provide responsible and innovative leadership in developing and disseminating knowledge about education. In training students to teach, the emphasis is not only on sound pedagogical principles and approaches, but also the values of equality, diversity, and non-discrimination.

Programmes

(For Adult Education, see §31.090.1)
Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

24 Minor in Education
24 Chosen from EDUC 201[6], 210[6], 230[3], 241[3], 305[3], 306[3], 317[3], 321[3], 324[3], 398[3], 399[6], 405[3], 416[3], 417[3], 422[3], 423[3], 426[3], 427[3], 428[3], 429[3], 440[3], 442[3], 450[3], 454[3], 498[3]

120 BA Specialization in Early Childhood and Elementary Education
81 *Group A*
ARTE 201[3]; EDUC 210[6], 211[3], 222[3], 260[3], 262[3], 264[3], 271[3], 272[3], 301[3], 371[3], 373[3], 375[3], 380[3], 381[3], 382[3], 387[3], 388[3], 400[3], 445[3], 450[3], 454[3], 473[3], 474[3], 475[3], 476[3]
12 *Group B*
Chosen from EDUC 230[3], 305[3], 321[3], 383[3], 385[3], 389[3], 405[3], 422[3], 423[3], 426[3], 427[3]
27 *Group C*
Students must also take a minimum of 27 credits outside the Department of Education

NOTE 1: This programme is open to full-time students only. In addition to the application submitted to the University, Specialization applicants MUST complete an additional application which may be obtained from the Early Childhood and Elementary Education secretary.
NOTE 2: Upon successful completion of the BA Specialization in Early Childhood and Elementary Education programme and application to the Student Service Centre, students may be recommended to the Québec Teachers Certification Service for a Québec teaching permit, valid for teaching kindergarten and grades 1–6.

To remain in the Early Childhood and Elementary Education Specialization programme and to be recommended for certification, students must:
1. achieve at least a "B" grade in each of the following practicum courses: EDUC 271, 272, 371, 373, 375, 473, 474, 475, 476; and
2. achieve at least a "C+" grade in each of the

following methods courses: EDUC 222, 301, 380, 381, 382, 383, 385, 387, 388, 389. Students who obtain a grade that is below the above required level will be placed on conditional standing within the programme and will be so informed in writing. Students will be allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see §16.3.12.)
Students who fail to achieve the above minimum grades in two internships/methods courses (i.e. failing the same internship/methods course twice or two different internships/methods courses) will be required to withdraw from the Early Childhood and Elementary Education Specialization programme (see §16.3.12).
NOTE 3: Students who intend to teach Catholic religious and moral instruction are advised to take EDUC 389 in addition to THEO 210, 330 or 350.

42 BA Major in Child Studies
18 EDUC 210[6], 211[3], 260[3], 262[3], 374[3]
12 Chosen from EDUC 305[3], 306[3], 317[3], 405[3], 416[3], 417[3], 490[3], 491[3]
6 Chosen from EDUC 230[3], 241[3], 321[3], 324[3], 422[3], 423[3], 426[3], 427[3], 428[3], 429[3], 440[3]
6 Chosen from a cognate discipline (courses to be designated)

CERTIFICATE IN EDUCATION
The Department of Education offers a 30-credit programme leading to the Concordia University Certificate in Education and certification from the Provincial Department of Education.
NOTE: This programme is restricted to individuals presently employed in a recognized educational institution in Québec and holding a provisional teaching authorization.

Admission Requirements
1. Evidence of full-time employment with a recognized institution in Québec.
2. Possession of a Québec provisional teaching authorization.

Admission limited.

Courses
EDUC 201[6]
EDUC 210[6]
EDUC 445[3]
EDUC 471[6]
either EDUC 480[3], 481[3], or an equivalent course in teaching methodology.
Six additional undergraduate credits in Education chosen in consultation with the director of the programme.

Students may transfer into the Certificate programme up to *12* credits earned in an incomplete degree or Certificate programme or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

NOTE:
1. *The student must meet the minimum scholarity requirements set by the Provincial government before being recommended for certification. See the conditions for certification following the BA Specialization in Early Childhood and Elementary Education above.*
2. *This programme is not open to teachers of vocational subjects.*

For other programmes which may be of particular interest to teachers, see §23.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

EDUC 201 ***The Nature and Function of Teaching*** (6 credits)
An introduction to the purpose, theories, and methods of teaching.

EDUC 210 ***Psychology of Education*** (6 credits)
This course introduces students to a broad range of content in educational psychology, including its scope and methods, learning motivation, growth and development, adjustment, individual differences, guidance, and concept of self.

EDUC 211 ***Child Development*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies. This course provides an overview of the social, emotional, cognitive, and physical development of children from birth to age 12 and an in-depth examination of selected critical issues. The implications of developmental needs in relation to preschool elementary education are discussed.

EDUC 222 ***Exploring Movement with Children*** (3 credits)
Prerequisite: Enrolment in Early Childhood and

Elementary Education Specialization. From a multi-disciplinary perspective, this course examines the following topics: the relationship between movement and self-knowledge, psychomotor development, and the role of physical activity in primary education. The course addresses the teacher's role in incorporating movement into the curriculum for all children, including those with special needs through the use of specific techniques and activities.

EDUC 230 ***Introduction to Philosophy of Education*** (3 credits)

This course introduces the student to the content and form of several major educational theories, and to conceptual and logical procedures of philosophizing about education, with particular reference to teaching and learning.

EDUC 241 ***Education in Western Civilization*** (3 credits)

An introduction to selected major thinkers and systems of thought in (and impinging on) education from Antiquity to the twentieth century. Emphasis is placed on thought and practice in the context of significant cultural, socio-economic, political, and religious developments.

NOTE: Students who have received credit for EDUC 441 may not take this course for credit.

EDUC 260 ***Historical and Philosophical Foundations of Early Childhood Education*** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies. This course is an introduction to the historical and philosophical foundations of early childhood education. The development of institutions for the care and education of young children is discussed in relation to changes in the family, concepts of childhood, and educational theories. Students use methods of historical and philosophical inquiry to examine current issues in early education, including school readiness, early literacy, integration, multiculturalism, and public policy. The objective is to provide students with the basis for identifying and critiquing problems in education.

EDUC 262 ***The Family and the Child*** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies. Students are introduced to developmental, psychological, and sociological aspects of the child and family. Emphasis is placed on the diversity of family structures, the transition to parenthood, child-rearing patterns, and the relationship between home and school. Problems and issues of the family, such as divorce, child and spouse abuse, dual-worker families are also addressed.

EDUC 264 ***Communication: Child, Parent and Teacher*** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization. This course focuses on the role parents play in the various stages of the child's academic, social, and emotional development. The format for this course is unique in that parents of the children in our observation nursery are involved, and students interact with them by conducting and participating in parent-teacher seminars. Topics include parenting, the impact of the family on the child's classroom behaviour, child abuse, cultural issues, disciplinary measures at home and in school, the coordination of home-and-school academic goals, and achievement motivation.

EDUC 271 ***Practicum I: Early Childhood Teaching*** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; students must be enrolled in EDUC 272 in the same semester. This practicum gives students first-hand knowledge of the importance and implications of the links between daycare and schooling. It permits students to develop preliminary skills in observing, assessing, and meeting the needs of individual children, articulating educational objectives, working effectively with small groups, and planning and implementing a play-based curriculum. Students are placed in an early childhood setting one day a week for a total of 84 hours.

EDUC 272 ***Early Childhood Teaching Seminar*** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; students must be enrolled in EDUC 271 in the same semester. This course supports EDUC 271 by offering a thorough introduction to theoretical and applied aspects of early childhood education through a weekly seminar consisting of lectures, discussions, and video presentations on such topics as the educational and developmental needs of young children, models of education, the role of the teacher, the relationships between daycare and schooling, play-based curriculum and instruction, health and safety issues, and the design of appropriate learning environments.

EDUC 298 ***Selected Topics in Education*** (3 credits)

EDUC 299 ***Selected Topics in Education*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

EDUC 301 ***Integrating Computers into the Elementary Classroom*** (3 credits)

Prerequisite: Enrolment in Early Childhood and

Elementary Education Specialization. This course provides an introduction to theoretical and practical knowledge regarding the use of computers in elementary school classrooms. Assignments are designed to provide students with hands-on experience with the computer. Topics include social interaction and equity, problem-solving skills, software evaluation, interactive technologies, and curriculum planning.
NOTE: Students are expected to have some basic computer skills (at least wordprocessing) prior to enrolling in this course. Students with no previous experience in using computers are advised to take INTE 290 before enrolling in this course.

EDUC 305 ***Technology for Educational Change*** (3 credits)
This course provides an introduction to salient advances in the theory, research, and practice of educational technology. The following topics are typically covered: traditional media survey, systems approach and instructional design, origins of information explosion, computer technologies of instruction (e.g. interactive video), distance education, and trends in educational technology research and evaluation.

EDUC 306 ***Computers and Computing in Education*** (3 credits)
Prerequisite: INTE 290, or permission of the Department. This course is an introduction to educational computing. Topics covered include the evaluation and selection of instructional software, and using the computer as a tool for processing information with existing applications (e.g. spreadsheets, databases, authoring languages, graphics) in an educational context. Laboratory work outside the class (IBM-PC or compatible).

EDUC 317 ***The Urban Child*** (3 credits)
This course concentrates upon the life of the inner-city child and the concomitant influences upon their development in and out of the classroom. Students are instructed in how to view the urban area from the child's perspective, through field assignments in inner-city schools or recreation centres. Lectures by social workers, police officers of the youth section, legal aid counsellors, and inner-city teachers heighten the awareness of students to the environment in which the inner-city child lives.

EDUC 321 ***Sex Role Socialization in the School*** (3 credits)
This course focuses upon how children at the elementary- and secondary-school level are socialized for different work roles, and how work segregation has occurred on the basis of this process. The role of schools and curriculum is examined in relation to cultural changes in social roles.

EDUC 324 ***Patterns of Educational Culture*** (3 credits)
This course is an introduction to the variety of cultural settings in which formal schooling and informal education socialization take place. The cultural milieu of education, both inside the classroom and outside, in the family, the neighbourhood, the market-place, and the political arena is the focus of readings and lectures. The aim of this course is to immerse the student in the concepts of anthropology and education in the broadest sense. It is hoped that students become sensitized to the concept of culture, cultural assimilation, enculturation, socialization, informal, non-formal, and formal educational systems, open and closed societies, and cross-cultural comparison.

EDUC 371 ***Practicum II: Classroom Interaction Dynamics*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization ; 30 credits including EDUC 271, 272. This course is designed to encourage both systematic and anthropological observation of children in large and small groups in the classroom. Interaction between the child and the teacher as well as peer group interaction are examined. Sociolinguistics, verbal and non-verbal communication, and teacher expectations are topics covered. The purpose of this course is to heighten students' awareness of effective communication strategies and classroom interaction patterns. Classroom observation and student participation are the means by which topics are handled in the course. Students conduct guided observations in recognized educational institutions (45 hours) to learn about classroom interactions under the supervision of the course instructor.

EDUC 373 ***Practicum III: Observation, Evaluation and Analysis of Teaching*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 30 credits including EDUC 271, 272; students must be enrolled in EDUC 375 in the same semester. Students are given the opportunity of observe, evaluate, and implement age appropriate curricula in recognized educational institutions (K-6; 32 hours). They develop teaching skills which include effective questioning techniques, classroom management, activity planning, and self-evaluation. In this internship, students are required to perfect these skills by means of videotaping their teaching. The tapes are reviewed and discussed in class with the course instructor and fellow students.

EDUC 374 ***Child Studies Practicum*** (3 credits)
Prerequisite: 30 credits in the Major programme. This course is designed to provide students with training in observation and evaluation procedures. Students study children in a variety

of child-oriented environments and programmes. Instruction focuses on evaluative methodology, e.g. observational methods and interactional analyses. Students are required to complete a one half-day per week internship in addition to the regularly scheduled class time. Appropriate field placements for this course include recreation/community centres, hospitals, daycare centres, libraries, museums, fine arts centres. *NOTE: Students who have received credit for EDUC 371 may not take this course for credit.*

EDUC 375 ***Observation, Evaluation and Analysis of Teaching Seminar*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 30 credits including EDUC 271, 272; students must be enrolled in EDUC 373 in the same semester. This course supports EDUC 373 in that it focuses on the development and evaluation of curricula and the appropriateness of various classroom management techniques. Students learn how to conduct a diagnostic observation to create a dynamic profile of the child and how to prepare evaluation reports for parent-teacher communication. Students meet to discuss internship experiences, teaching philosophies, evaluation techniques, and to exchange information about programme implementation.

EDUC 380 ***Teaching Language Arts I*** (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course enables students to acquire the necessary skills for developing a stimulating and appropriate language arts programme for kindergarten and primary grades. Current theories of literacy development and implications for planning and instruction are addressed. The course focuses on listening, speaking, reading, and writing, emphasizing the integration of language arts activities into other subject areas.

EDUC 381 ***Teaching Language Arts II*** (3 credits)
Prerequisite: 30 credits including EDUC 380; enrolment in Early Childhood and Elementary Education Specialization. This course is a continuation of EDUC 380 with special emphasis on teaching language arts in grades 3–6. Students become familiar with MEQ programme guidelines, and various ways to organize and evaluate their implementation.

EDUC 382 ***Teaching Science Concepts in the Elementary Classroom*** (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course examines areas of science which are relevant to elementary education and emphasizes the development of the spirit of scientific enquiry. Resource materials, teaching methodology, and classroom activities are examined and evaluated in light of the MEQ guidelines. Assignments emphasize developing activities for classroom use.

EDUC 383 ***Promoting Moral and Spiritual Attitudes and Values in Young Children*** (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course is designed to introduce the early childhood teacher to the various issues involving the development of moral judgement and reasoning in the young child. Cultural, social, cognitive, and emotional factors influencing the growth of morality are discussed. The major focus is on examining methods and techniques to enhance the personal development of positive social behaviours (i.e. helping, sharing, caring, etc.) in preschool and primary level children.

EDUC 384 ***Exploring the Human Sciences with the Preschool and Primary Age Child*** (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course examines the teaching of the human sciences to young children.

EDUC 385 ***Teaching a Second Language to Elementary School Children*** (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course is designed to give teachers a background in current theories of language acquisition and second language learning. Teaching methodologies such as immersion, enrichment, and core/complementary curricula are studied and resource materials are examined and evaluated. Assignments include the development of appropriate classroom activities at the elementary level.

EDUC 387 ***Teaching Mathematics I*** (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. Programmes and methodologies for teaching numerical concepts typically acquired by the preschooler and the primary child are studied and evaluated. Relevant resource materials are examined and assignments focus upon development of activities for the classroom.

EDUC 388 ***Teaching Mathematics II*** (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course concentrates on topics such as geometry, classification, measurement, mathematical language, and the use of the calculator according to the MEQ elementary mathematics programme guidelines. The use of

manipulative aids in instructing children is explored and illustrated. Relevant resource materials are examined and assignments focus upon the development of activities for classroom use.

EDUC 389 ***Catholic Moral and Religious Teaching in the Context of Québec Schools*** (3 credits)
Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course is designed to provide early childhood educators with the skills to develop a programme of Catholic moral and religious instruction within the context of Québec schools. The school curriculum, resource materials, and teaching methodologies for the primary and preschool child are studied.

EDUC 398 ***Selected Topics in Education*** (3 credits)

EDUC 399 ***Selected Topics in Education*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

EDUC 400 ***Teaching Across the Curriculum*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; EDUC 380. Using language arts and the social sciences as the starting point, this course outlines different models for integrating school subjects in curriculum programming. Special attention is given to social science methodology, thematic planning and project work, and to the use of literature and drama. Students examine the links between the different programmes of study developed for Québec schools by the MEQ, and their overall implications for curriculum planning.

EDUC 405 ***Television in the Lives of Young Children*** (3 credits)
Prerequisite: 30 credits. This course examines the effects of television on children from a cognitive-developmental perspective. Learning theory, production techniques, cognitive theory (information processing) are the basis around which the communication process between the child and the media is examined. Both the positive and negative effects of television on children are considered. The concept of media literacy and classroom use of television is also discussed.

EDUC 416 ***Education of the Gifted*** (3 credits)
Prerequisite: EDUC 210. This course discusses the special educational problems of gifted children. It also assesses the effectiveness of the techniques usually employed to deal with these problems.

EDUC 417 ***Education of the Disadvantaged Child*** (3 credits)
Prerequisite: 30 credits. This course deals with issues associated with teaching disadvantaged children. Social, emotional, cognitive, and familial problems are discussed and techniques for coping with these problems are presented.

EDUC 422 ***Sociology of Education I*** (3 credits)
Prerequisite: 30 credits. This course emphasizes sociological concepts and their application to the study of schooling. The focus is on the education system in relation to familial, economic, and political aspects and how these affect social class differentials in educational achievement and social status position.
NOTE: Students who have received credit for EDUC 421 may not take this course for credit.

EDUC 423 ***Sociology of Education II*** (3 credits)
Prerequisite: EDUC 422. This course considers how a particular sociological viewpoint contributes to our understanding of school life. Topics include family, socialization patterns, teacher and pupil perspectives, and how these are interrelated.
NOTE: Students who have received credit for EDUC 421 may not take this course for credit.

EDUC 426 ***Comparative Education I*** (3 credits)
Prerequisite: Six credits in Education. This course undertakes the study of the impact of political and cultural differences upon educational systems (for example, the impact of language differences, nationalism, colonialism, neocolonialism, political socialization). The approach is comparative, with particular emphasis on contrasting educational systems and practice in Western nations (Canada, the United States, United Kingdom, or Western Europe); the Soviet Union; and China or other Third-World nations.

EDUC 427 ***Comparative Education II*** (3 credits)
Prerequisite: Six credits in Education. This course examines the sources and impacts of educational change from a comparative perspective. Topics include pedagogical alternatives; socio-political alternatives; educational implications of technological change and economic policy; policies of elitism and egalitarianism. Methods include comparative case study and analysis of specific theories of educational innovation.

EDUC 428 ***Philosophy of Education: Concepts and Issues*** (3 credits)
Prerequisite: Three credits at the university level in Philosophy, or EDUC 230. The course considers the application of philosophical method to aspects of educational theory or practice, e.g. educational aims, teaching

methods, concepts which occur in educational discourse, or educational controversies.

EDUC 429 ***Philosophy of Education: Educational Philosophers and Movements*** (3 credits)
Prerequisite: Three credits at the university level in Philosophy, or EDUC 230. The course undertakes the study of a philosopher or school of philosophy whose works include significant educational reference or implication: e.g. Plato, Aristotle, Rousseau, Dewey, Marxism, utilitarianism, modern analytical philosophy.

EDUC 431 ***Honours Essay in Education*** (6 credits)
Open to third-year students in Honours in Education and Philosophy (or to others by permission of the Department).

EDUC 432 ***Seminar in Epistemology and Education*** (3 credits)
Prerequisite: EDUC 428 or 429, or permission of the Department. Theories of knowledge are considered in this course, with special attention being given to the bearing of such topics as perception, evidence, truth, knowledge, and belief as relating to educational thought and practice. Students are expected to become familiar with recent periodical and other literature in the field.

EDUC 433 ***Seminar in Ethics and Education*** (3 credits)
Prerequisite: EDUC 428 or 429, or permission of the Department. This course examines the principles and methods of moral justification in education. They are referred to the writing of main authors and recent periodical literature.

EDUC 434 ***Seminar in Aesthetics and Education*** (3 credits)
Prerequisite: EDUC 428 or 429, or permission of the Department. The nature of aesthetic value and experience, and theories of art and beauty are examined. The development of the emotions and imagination, and their functions in aesthetic awareness are central concerns of this course. Students are expected to become familiar with the relevant literature in the field.

EDUC 435 ***Seminar in Philosophy and Education*** (3 credits)
Prerequisite: EDUC 428 or 429, or permission of the Department. This is an advanced seminar in philosophical analysis and theory, in which students present papers on, and conduct discussions about, educational concepts, aims, and practices. Students are expected to become familiar with the periodical and other literature in the areas under discussion.

EDUC 440 ***History of Education, Thought and Practice*** (3 credits)
Prerequisite: 30 credits. This course focuses on a selected theme, school of thought, or movement in education and educational thought such as the education libertarians from Rousseau to Holt, the evolution of the curriculum, the origins of public education.
NOTE: Students who have received credit for EDUC 441 may not take this course for credit.

EDUC 442 ***Education in Canada*** (3 credits)
Prerequisite: Six credits in Canadian history. It is advisable that students have a reading knowledge of French. This course studies the history of Canadian education and, more particularly, the history of education in Québec.

EDUC 445 ***Education in Québec*** (3 credits)
Prerequisite: 30 credits in a teacher certification programme, or holder of a provisional teaching authorization, or permission of the Department. This course covers the history, the contemporary movements, and the structures of Québec education. The historical section covers the period from 1608 until the present. Topics included are the legislation, regulations, rules, and directives pertaining to the respective roles of the Ministry of Education, the school boards, the teachers, the parents, and the students in Québec's educational system.
NOTE: Because this is a required course for all individuals enrolled in a Québec programme of teacher training, the content is controlled by the Ministry of Education.

EDUC 450 ***The Inclusive Classroom: Educating Exceptional Children*** (3 credits)
Prerequisite: 30 credits including EDUC 210 or 211. This course focuses on the education of children with special needs. Emphasis is placed on ways in which classroom teachers can provide appropriate help or instruction to meet the needs of exceptional children. Topics include identification and assessment of learning needs; adaptation of curriculum and activity design, service delivery models; parent-professional relationships; legislative policies.

EDUC 454 ***Diversity in the Classroom*** (3 credits)
Prerequisite: 30 credits including EDUC 210 or 211. Students examine the implications of diversity in the classroom for teaching, curriculum, and children's educational experience. Various theoretical approaches are analysed, including critical pedagogy, multicultural education, and intercultural education. The importance of inclusive curricula is discussed.

EDUC 471 ***Supervised Internship*** (6 credits)
This course is offered only to students enrolled in the Certificate in Education programme. Teaching internship is carried out in the school where the student is employed. The students are supervised and their teaching performance

evaluated. The students are expected to demonstrate positive evidence of teaching competence and professional behaviour.

EDUC 473 ***Practicum IV: Kindergarten/ Primary Teaching*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 371, 373, 375; students must be enrolled in EDUC 474 in the same semester. This internship is a twelve-week (300 hours) supervised student-teaching experience in a full-day kindergarten and/or primary classroom. Students share in the daily work of their cooperating teachers, and progress gradually from being participant observers working with small groups to taking charge of the whole class as independent, creative practitioners. Students perfect their skills in activity planning, intervention strategies, the evaluation of student learning, and the management of classroom routines.

EDUC 474 ***Kindergarten/Primary Teaching Seminar*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 371, 373, 375; students must be enrolled in EDUC 473 in the same semester. This seminar complements EDUC 473 by providing the opportunity, means, and impetus for students to reflect critically on their teaching philosophy and practice. Topics include the development of appropriate and stimulating learning environments, MEQ kindergarten and primary programme guidelines, planning and implementation of learning centres, teaching the "whole" child, teacher-parent relationships, and other current issues in primary education.

EDUC 475 ***Practicum V: Elementary Teaching*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 473, 474; students must be enrolled in EDUC 476 in the same semester. Students are placed in an elementary classroom (grades 3–6) for an eight-week (200 hours) supervised student-teaching assignment. The internship provides students with further opportunities to develop advanced skills in curriculum planning and implementation, preparing and evaluating appropriate materials, monitoring student progress, and the individualization of instruction. A further aim of the internship is to promote the development of the student's own teaching style, and skills in self-evaluation.

EDUC 476 ***Elementary Teaching Seminar*** (3 credits)
Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 473, 474; students must be enrolled in EDUC 475 in the same semester. This seminar supports and complements EDUC 475. Its purpose is to discuss, review, and analyse relevant classroom issues in the context of the teaching-learning environments in which the students are working. Topics include inclusivity, diversity in the classroom population, curriculum development, involvement of parents in their children's education, and the facilitation of pro-social behaviour in the elementary school child. This course uses small group discussions, films, analysis of case studies, and student presentations.

EDUC 480 ***Special Methods of Teaching — Elementary*** (3 credits)
This course is offered only to students enrolled in the Certificate in Education programme. It deals with methods of teaching in the elementary school. Emphasis is placed on the practical application of educational theories.

EDUC 481 ***Special Methods of Teaching — Secondary*** (3 credits)
This course is offered only to students enrolled in the Certificate in Education programme. This course deals with methods of teaching in a high school subject. The course is designed to suit the individual student's field of specialization.

EDUC 490 ***Children with Health Problems and Handicaps I*** (3 credits)
Prerequisite: EDUC 211 or equivalent; 30 credits in Education, or permission of the Department. This course offers a theoretical and practical introduction to the challenges facing children who have various disabilities or chronic illnesses. The course addresses the question: how can families, educators, and others work towards the goal of equitable opportunity for these children? Topics include attitudes, the normalization principle, education, and life in the mainstream.

EDUC 491 ***Children with Health Problems and Handicaps II*** (3 credits)
Prerequisite: EDUC 490, or permission of the Department. This course is an exploration of children's experiences with illness, disability and health or medical care, and specific interventions which can foster coping, healthy development, and family well-being. Topics include cognitive and emotional preparation for stress-provoking events, the therapeutic use of play, creative expression, and special literature for children and youth. Laboratory work outside the class is required.

EDUC 498 ***Advanced Topics in Education*** (3 credits)

EDUC 499 ***Advanced Topics in Education*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.090.1
Adult Education
(Andragogy)

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

42 *BA Major in Adult Education
**Admission suspended for 1996-97.*

The Department of Education offers a 30-credit Certificate programme and a 24-credit Minor in Adult Education consisting of both required and optional courses: core courses in the foundations of adult education; courses related to functions, skills, and competencies of adult educators in the field of practice; and courses related to some dimensions which constitute the body of knowledge of adult education.

30 Certificate in Adult Education
Certificate Admission Requirements
General admission requirements are listed in §13. Applicants will be interviewed prior to admission.

Students must take:
6 ADED 201[3], 202[3]
15 Chosen from the Adult Education (ADED) offerings
3 Chosen from cognate courses with the permission of the programme director
6 ADED 496[3], 497[3], Integrative Seminars

Students may transfer into the Certificate programme up to *12* credits earned in an incomplete degree or Certificate programme or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

24 Minor in Adult Education
6 ADED 201[3], 202[3]
18 Chosen from Adult Education (ADED) course offerings with the prior approval of the Adult Education coordinator.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

ADED 201 ***Concepts and Principles of Adult Education*** (3 credits)
This course consists of an overview of the field of adult education as a field of study with emphasis given to its philosophy, objectives, historical development, and the nature of adult learners. It also examines adult education as a field of practice with emphasis given to methods, techniques, roles, and competencies. This course stresses active student participation and self-directedness.
NOTE: Students who have received credit for ADED 200 may not take this course for credit.

ADED 202 ***The Scope and Nature of Adult Education Programmes*** (3 credits)
This course is designed to help students develop an understanding of the scope and nature of adult education programmes. Emphasis is placed on existing programmes, and institutions and agencies providing them. The course stresses active student participation and self-directedness.
NOTE: Students who have received credit for ADED 200 may not take this course for credit.

ADED 220 ***Adults as Learners*** (3 credits)
This course examines the unique physiological, psychological, and sociological characteristics of adults, their influence on adult learning and development, and their implications for educational intervention. Attention is given to changes which occur at various stages of the adult life cycle, and particularly to the dimensions which affect the adult's self-concept and orientation to learning, the motivations, needs, and interests which cause adults to participate in educational activities.

ADED 230 ***Roles and Competencies of Adult Educators*** (3 credits)
The purpose of this course is to review the state of professionalization of adult education. General skills, knowledge, and attitudes expected of adult educators regardless of the setting in which they work are examined. In addition, according to the participants' needs and interests, an opportunity is given to explore competencies related to the particular roles of, e.g., administrators, programme developers, trainers, leaders, instructors, counsellors, and volunteer workers.

ADED 240 ***Introduction to Research in Adult Education*** (3 credits)
This course is designed to introduce students to how to gain access to and utilize major information sources in adult education. In addition, the course examines research interests and problem areas studied in adult education and related fields, along with current trends and various methods of enquiry used.

ADED 298 ***Selected Topics in Adult Education*** (3 credits)

ADED 299 ***Selected Topics in Adult Education*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ADED 333 ***Methods and Techniques for Facilitating Adult Learning*** (3 credits)
This course is designed to give adult educators an opportunity to practise and improve their skills in facilitating adult learning. Different models of educational processes and optimal conditions for promoting adult learning are examined; attention is given to case studies, role plays, and simulation methods and techniques, as well as to individualized learning formats.
NOTE: Students who have received credit for ADED 330 or 331 may not take this course for credit.

ADED 344 ***Design of Adult Learning Projects*** (3 credits)
The purpose of this course is to assist participants in developing a clear working concept of various models for planning and designing adult learning projects. To facilitate this understanding, the different steps of the process are closely examined and discussed. Participants are given an opportunity to design and conduct a learning activity in the area of subject matter speciality. A systems approach, including methods for evaluating the design of the learning project is emphasized.
NOTE: Students who have received credit for ADED 340 or 341 or 343 may not take this course for credit.

ADED 345 ***Evaluating Adult Learning Projects*** (3 credits)
The purpose of this course is to assist participants in developing a clear working concept of various models for assessing the effectiveness of adult learning projects. The course emphasizes a systematic approach to evaluation, techniques for collecting information and providing feedback to programme operation and impact. Participants are given the opportunity to conduct an evaluation of an adult learning project in the area of subject matter speciality.
NOTE: Students who have received credit for ADED 342 or 343 may not take this course for credit.

ADED 351 ***Introduction to Administration of Adult Education*** (3 credits)
This course is designed to develop a better understanding of the principles of organization and administration as they relate to various institutions, government agencies, schools, and hospitals. The course also examines the evolving relationships of administrative theory and practice.

ADED 370 ***Workshops for Adult Educators*** (3 credits)
These workshops examine a number of topics and problems related to the field of adult education. The issues considered may differ from year to year and will be stated in the Undergraduate Class Schedule. The workshop format is designed to provide adult educators with learning opportunities that are flexibly scheduled or in the form of a one-week intensive seminar.

ADED 398 ***Selected Topics in Adult Education*** (3 credits)

ADED 399 ***Selected Topics in Adult Education*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ADED 410 ***Adult Education in Canada and Québec*** (3 credits)
The purpose of this course is to examine the historical development and current state of adult education in Canada, with special reference to Québec. Various factors which influenced the development of adult education in our society are explored; the focus is on present status, role and structure, and socio-cultural and philosophical underpinnings of the field.

ADED 412 ***Concepts and Values in Adult Education*** (3 credits)
This seminar is designed to encourage adult educators to reflect upon and question what one is engaged in and why. A selection of conceptual and philosophical issues underlying adult educational practice is critically examined and discussed. Attention is given to the meaning of words, the nature of ideas and values, the implications of assumptions and principles which are deemed specific in the sphere of the education of adults.

ADED 440 ***Issues in the Practice of Adult Education*** (3 credits)
The purpose of this seminar is to study and discuss current issues relating to the field and profession of adult education in general, along with more specific and local concerns. Group and individual interests have an important bearing on the design of this course.

ADED 450 ***Adulthood and the Process of Educational Change*** (3 credits)
This course examines the factors which promote and inhibit educational change in adults. It provides a basis for understanding and intervening with adults in order to facilitate their taking greater responsibility for managing their own learning and for increasing effectiveness.

ADED 496 ***Integrative Seminar I*** (3 credits)
Prerequisite: ADED 201; ADED 202. This seminar is designed to assist individual students in achieving a synthesis of their own experiential learning in the light of acquired knowledge, skills, values, and attitudes through the clarification of personal aims and the philosophy of adult education.
NOTE: Students who have received credit for

ADED 495 may not take this course for credit. NOTE: Students will normally enrol in ADED 496 near the end of their programme.

ADED 497 ***Integrative Seminar II*** (3 credits)
Prerequisite: ADED 496. This seminar is designed to extend the personal aims and philosophy of adult education arrived at in Integrative Seminar I, and engage in a special project in an adult education facility where supervision is provided by the host institution. *NOTE: Students who have received credit for ADED 495 may not take this course for credit.*

ADED 498 ***Advanced Topics in Adult Education*** (3 credits)

ADED 499 ***Advanced Topics in Adult Education*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.100 ENGLISH

Faculty

Chair
G. DAVID SHEPS, *Associate Professor*

Professors
MERVIN BUTOVSKY
HOWARD FINK
MALCOLM FOSTER
GARY GEDDES
JUDITH S. HERZ
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ROBERT PHILMUS

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J.W. McConnell Building, Room: LB 501
(514) 848-2340

Department Objectives

The Department of English offers studies in literature, creative writing, and composition. Literary studies encourage appreciation and critical analysis of texts in their historical, literary, and cultural contexts. The Creative Writing programme allows students to learn the craft involved in the production of original literary work. Composition courses, for students throughout the University, help to develop writing skills from basic to advanced levels.

ADMISSION REQUIREMENTS FOR CREATIVE WRITING COURSES AND PROGRAMMES

Genre courses in Creative Writing are conducted as workshops in which enrolment is limited to permit constructive analysis of a student's work. Students wishing to enter any introductory genre course in Creative Writing (225, 226, 227) must apply by submitting a letter of intent along with a portfolio consisting ordinarily of 20 pages of their own work in any genre. Applications will be received as early as January of each year but no later than March 15. Since student demand regularly outpaces our enrolment capacity, early application is advisable.

Creative Writing programmes (Major and Minor) are designed primarily to develop the literary skills of students with a commitment to writing as an art form. Structured workshops guide students from introductory to advanced levels through the practice of their craft under the supervision of experienced writers.

Students wishing to proceed to an advanced (400-level) workshop must achieve a final grade of "B-" or better in an introductory workshop in Creative Writing.

Students are required to complete the appropriate entrance profile for entry into the programme (see §31.002 — Programmes and Admission Requirements — Profiles).

REQUIREMENTS FOR ENGLISH LITERATURE MAJOR

All students entering the English Literature Major must take a special Composition placement test which includes a literary component. Depending on the results of the test, students will be granted exemption from the Composition requirement, or placed according to their levels in, initially, one of

ENGL 208, ENGL 212, or ENGL 213. (Some sections of ENGL 212 and ENGL 213 are specially designated for English Majors.) Credits in ENGL 212 and ENGL 213 count as elective credits towards the programme total; credits in ENGL 208 count towards the BA but not towards the programme total. The Composition requirement has to be satisfied in the first year of enrolment in the programme. Note also the Genre and Critical Method requirements of the programme.

ADMISSION REQUIREMENTS FOR JOINT SPECIALIZATION IN PLAYWRIGHTING (ENGLISH AND THEATRE)

This programme is intended for a very few exceptionally talented students each year. Students wishing to enrol in this programme should make an application to either the Major in Creative Writing or the Major in Theatre (Department of Theatre). In either case, in consultation with their advisers, they should select courses which satisfy the requirements for both the departmental Major and for the Joint Specialization. Permission to transfer to the Joint Specialization and to enrol as student playwrights in THEA 420 Playwrighting Workshop is normally granted when students enter their final 30 credits and is based upon successful completion of ENGL 227 Creative Writing: Drama and ENGL 427 Advanced Creative Writing: Drama; review of the student's writing to date; and an interview. Students who are refused permission to transfer to the Joint Specialization should expect to complete the requirements for the departmental Major in which they originally enrolled.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
Students should consult the annual English Department brochure to determine which of the following courses are being offered in any given year.

60 BA Honours in English Literature

12 Credits in genre, critical reading and survey from ENGL 256[6], 257[3], 258[3], 263[6], 271[3], 273[3], 275[3], 277[3], 280[3], 281[6], 282[6], 283[6], 284[6], 384[3]
(To be taken within the first 24 credits in English)

6 Early, medieval, and 16th century from ENGL 262[6], 312[6], 313[3], 314[3], 315[6], 316[3], 317[3], 318[6], 430[6], 432[6]

6 17th and 18th centuries from ENGL 320[6], 326[6], 327[3], 328[3], 329[3], 332[6], 333[3], 334[3], 335[3], 347[6]

6 Romantic and Victorian to be chosen from ENGL 338[6], 339[3], 340[3], 342[6], 343[3], 344[3], 348[6]

6 Modern Literature from ENGL 305[6], 306[6], 307[3], 308[3], 355[3], 356[6], 357[3], 358[3], 359[3], 366[3], 390[6], 392[6]

6 Canadian Literature to be chosen from ENGL 290[6], 293[3], 370[6], 371[3], 372[3], 375[6], 379[3]

3 American Literature to be chosen from ENGL 300[6], 301[3], 303[3], 309[3], 311[6], 365[3], 367[3], 369[3]

3 ENGL 470[3]

12 ENGL elective credits from ENGL 224 to ENGL 499

54 BA Specialization in English Literature

12 Credits in genre, critical reading and survey from ENGL 256[6], 257[3], 258[3], 263[6], 271[3], 273[3], 275[3], 277[3], 280[3], 281[6], 282[6], 283[6], 284[6], 384[3]
(To be taken within the first 24 credits in English)

6 Early, medieval, 16th century, 17th century, and 18th century from ENGL 262[6], 312[6], 313[3], 314[3], 315[6], 316[3], 317[3], 318[6], 320[6], 326[6], 327[3], 328[3], 329[3], 332[6], 333[3], 334[3], 335[3], 347[6], 430[6], 432[6]

6 Romantic and Victorian from ENGL 338[6], 339[3], 340[3], 342[6], 343[3], 344[3], 348[6]

6 Modern Literature from ENGL 305[6], 306[6], 307[3], 308[3], 354[3], 356[6], 357[3], 358[3], 359[3], 366[3], 390[6], 392[6]

6 Canadian Literature from ENGL 290[6], 293[3], 370[6], 371[3], 372[3], 375[6], 379[3]

3 American Literature from ENGL 300[6], 301[3], 303[3], 309[3], 311[6], 365[3], 367[3], 369[3]

15 ENGL elective credits from ENGL 224 to ENGL 499

42 BA Major in English Literature

9 Credits in genre and critical method chosen from ENGL 271[3], 273[3], 275[3], 277[3], 280[3], 281[6], 282[6], 283[6], 284[6] (at least three credits to be taken in the first year of study; the remaining six to be taken within the first 15 credits in English)

12 Credits in English Literature period chosen from ENGL 312[6] through 344[3], 430[6], 432[6]

21 Elective credits: any English course from ENGL 212 to ENGL 499

60 BA Honours in English and Creative Writing

12 Chosen from ENGL 225[6], 226[6], 227[6]

6 Chosen from ENGL 425[6], 426[6], 427[6]

6 Chosen from ENGL 410[6], 411[6], 412[6], 413[6], 414[6]

6 Chosen from ENGL 224[3], 398[3*], 410[6], 411[6], 412[6], 413[6], 414[6], 425[6], 426[6], 427[6], 470[3]

6 Credits in genre, critical reading and survey from ENGL 256[6], 257[3], 258[3], 263[6], 271[3], 273[3], 275[3], 277[3], 280[3], 281[6], 282[6], 283[6], 284[6], 384[3]
(To be taken within the first 24 credits in English)

12 a) Early, medieval, and 16th century

from ENGL 262[6], 312[6], 313[3], 314[3], 315[6], 316[3], 317[3], 318[6], 430[6], 432[6]
b) 17th century and 18th century from ENGL 320[6], 326[6], 327[3], 328[3], 332[6], 333[3], 334[3], 335[3], 347[6]
c) Romantic and Victorian from ENGL 338[6], 339[3], 340[3], 342[6], 343[3], 344[3], 348[6]
(No more than six credits from any of the three sections)

6 Modern British, European, Anglo-Irish, and American from ENGL 300[6], 301[3], 303[3], 305[6], 306[6], 307[3], 308[3], 309[3], 311[6], 355[3], 356[6], 357[3], 359[3], 365[3], 366[3], 367[3], 369[3], 390[6], 392[6]

6 Canadian Literature from ENGL 290[6], 293[3], 370[6], 371[3], 372[3], 375[6], 379[3]

**NOTE: With departmental approval when the subject is designated as appropriate for the Creative Writing option.*

42 BA Major in Creative Writing*

12 Chosen from ENGL 225[6], 226[6], 227[6]
6 Chosen from ENGL 425[6], 426[6], 427[6]
6 Chosen from ENGL 410[6], 411[6], 412[6], 413[6], 414[6], 425[6], 426[6], 427[6]
6 Credits in Canadian Literature
12 ENGL elective credits in literature courses.

**NOTE: Students wishing to register for the Major in Creative Writing should refer to the admission requirements for Creative Writing courses and programmes.*

30 Minor in Creative Writing

12 Chosen from ENGL 225[6], 226[6], 227[6]
*12 Chosen from ENGL 410[6], 411[6], 412[6], 413[6], 414[6], 425[6], 426[6], 427[6]
6 ENGL elective credits

Students wishing to register for the Minor in Creative Writing should refer to the admission requirements for Creative Writing courses and programmes.
**NOTE: At least six credits in this group must be chosen from 425[6], 426[6], or 427[6]*

24 Minor in English Language

24 Chosen from ENGL 255[6], 256[6] or 257[3] and 258[3], 312[6], 313[3], 314[3], 384[3], 393[3], 394[3], 396[6], 430[6], 432[6], 477[3]

24 Minor in English Literature

24 ENGL elective credits in literature courses*

**Students are encouraged to consult with the Department in selecting their courses.*

24 Minor in English Dramatic Literature

6 ENGL 320[6]
18 Chosen from ENGL 227[6], 427[6], or English elective credits in dramatic literature

72 BA Joint Honours in English and French

6 Chosen from ENGL 256 through 284
6 Chosen from ENGL 290[6], 293[3], 298[3], 299[6], 300[6], 301[3], 303[3], 305[6], 306[6], 311[6], 356[6], 357[3], 358[3], 360[3], 361[3], 370[6], 371[3], 372[3], 375[6], 390[6], 392[6]
6 ENGL 312[6], 313[3], 314[3], 316[3], 320[6], 327[3], 328[3]
12 ENGL credits chosen by genre or periods to parallel choice in French courses to be chosen in consultation with the Departments
18 FRAN 252[3], 253[3], 270[3], 271[3], 321[3], 322[3], 402[6]
12 FRAN credits chosen by genre or periods to parallel choice in English courses to be chosen in consultation with the Departments
6 Elective credits in English or French, outside the parallel periods or genres chosen
6 ENGL 473[6] or FRAN 496[6*]

**NOTE: Students intending to take FRAN 496[6] should note that it has a 400-level prerequisite. Six of the 12 FRAN elective credits should therefore be chosen at the 400 level.*
NOTE: Prior to registration, students must have written approval for their programme from an authorized member of the Department.

60 BA Joint Specialization in English and History

6 Credits in genre, critical reading and survey from ENGL 256[6], 257[3], 258[3], 271[3], 273[3], 275[3], 277[3], 280[3], 281[6], 282[6], 283[6], 284[6] (to be taken in the first 24 credits in the programme)
6 Periods before 1800 (British and European) from ENGL 312[6] through ENGL 335[3]
6 North American (Canadian and American) from ENGL 290[6], 293[3], 300[6], 301[3], 309[3], 311[6], 365[3], 367[3], 369[3], 370[6], 371[3], 372[3], 375[6], 379[3]
6 19th Century and 20th Century (British and European) from ENGL 305[6], 306[6], 307[3], 308[3], 338[6], 339[3], 340[3], 342[6], 343[3], 344[3], 348[6], 352[3], 353[3], 355[3], 356[6], 357[3], 358[3], 359[3], 366[3], 390[6], 392[6], 459[6]
6 Elective credits from ENGL 224 to ENGL 499
6 HIST 201[3], 202[3]
6 HIST 203[3], 205[3], 251[3], 253[3]
6 200-300 level non-Western
3 300-level pre-1800 Canadian, American, British, or European
3 300-level post-1800 Canadian, American, British, or European
6 300-400 level History elective credits

60 BA Joint Specialization in Playwrighting (English and Theatre)*

12 THEA 240[6], 420[6]
3 TPER 201[3], 211[3]
3 PROD 311[3**]
12 Department of Theatre elective credits
12 ENGL 227[6], 427[6]
12 Elective credits in drama chosen from ENGL 235[3], 236[3], 267[6], 277[3], 318[6], 320[6], 335[3], 369[3], 379[3], 392[6]. At least

three credits must be in 20th-century drama

6 Elective credits in English Literature or Creative Writing

**See admission requirements for Joint Specialization in Playwrighting (English and Theatre).*
***NOTE: Students in Playwrighting are given an assignment of an appropriate dimension.*

Courses

200-level courses and 300-level courses without prerequisite are open to all students and may be used as English electives unless otherwise indicated.
Admission to the Honours programme is granted at the end of the student's first year, after departmental review.
Written work may be required in English for these courses; please consult with the Department.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

ENGL 205 ***Basic Language Skills — Stage I*** (3 credits)
A course for native speakers of English who need basic training in written English. Emphasis is placed on grammar, sentence structure, paragraphing, and other fundamentals of good usage.
NOTE 1: Students who have received credit for any ESL course may not take this course for credit. This course does not count for credit within any English programme.
NOTE 2: Students must take a placement test before registering for this course.

ENGL 206 ***Basic Language Skills — Stage II*** (3 credits)
Prerequisite: ENGL 205. A course for native speakers of English who need basic training in written English. This course is a continuation of ENGL 205.
NOTE: Students who have received credit for any ESL course may not take this course for credit. This course does not count for credit within any English programme.

ENGL 208 ***Introduction to English Composition and Literary Analysis*** (6 credits)
A composition course for students who wish to improve their ability to engage in written analysis of literary texts. The course includes analysis of fiction, poetry, and literary essays.
NOTE 1: This course does not count for credit within any English programme.
NOTE 2: Students must take a placement test before registering for this course.

ENGL 209 ***Elements of Written English*** (3 credits)
This course is intended for students who have completed ENGL 205 and ENGL 206 or ESL 209 but who are not yet ready for ENGL 212. The course provides additional practice in English composition with emphasis on idiomatic expression and correct usage.
NOTE 1: Students who have received credit for this course may not subsequently take any ESL course or ENGL 205 or ENGL 206. This course does not count for credit within any English programme.
NOTE 2: Students must take a placement test before registering for this course.

ENGL 212 ***English Composition — Stage I*** (3 credits)
This course is designed to help the student write clearly, concisely, grammatically, and in a logically organized way. Emphasis is placed on diction, sentence structure, paragraphing, and the organization of compositions and book reports.
NOTE 1: Students who have received credit for this course may not subsequently take any ESL course or ENGL 205, ENGL 206, or ENGL 209.
NOTE 2: Unless ENGL 209 has been completed previously, students must take a placement test before registering for this course.
NOTE 3: A GRADE OF "C-" OR HIGHER IN THIS COURSE MEETS THE UNIVERSITY WRITING TEST REQUIREMENT.

ENGL 213 ***English Composition — Stage II*** (3 credits)
Prerequisite: ENGL 212. This course develops further the writing skills acquired in ENGL 212. The main purpose is to familiarize students with the techniques necessary for the preparation of research papers and academic reports.
NOTE: Students who have received credit for this course may not subsequently take any ESL course or ENGL 205, ENGL 206, or ENGL 209.

ENGL 224 ***The Creative Process*** (3 credits)
This is a series of lectures and discussions on aspects of the writing life, including technique, literary influences, sources of inspiration, revision, and process. Material is drawn from texts, letters, worksheets, and biographies of well-known poets, prose writers, and playwrights, as well as from the instructor's own experience. Students are invited to read widely, participate in discussions, write papers, and engage in some writing of poetry, fiction, or drama. This course is open to all students.
NOTE: Students wishing to register for ENGL 225, 226, or 227, should refer to admission requirements for Creative Writing.

ENGL 225 ***Creative Writing: Poetry*** (6 credits)
A seminar in the writing and criticism of poetry, including detailed discussion and written criticism of the students' work, and, at the discretion of the instructor, the study of selected poems.

ENGL 226 ***Creative Writing: Prose*** (6 credits)
A seminar in the techniques of short fiction, including investigations of and exercises in a variety of creative and technical problems, as well as analysis and criticism of the students' own work. Students may be required to read selected works of short fiction.

ENGL 227 ***Creative Writing: Drama*** (6 credits)
A seminar in the writing of plays, including an exploration of dramatic forms and techniques. The students are expected to submit work of their own for discussion and analysis.

ENGL 232 ***The Oral Interpretation of Poetry and Drama*** (6 credits)
The aim of this course is to demonstrate the close relationship between the rhythm and texture of the spoken word and meaning in poetry and drama. Poems and scenes from plays are read aloud, studying the importance of emphasis to meaning and (in the latter) the relationship of dialogue to character.

ENGL 235 ***Plays of the Renaissance Theatre*** (3 credits)
Designed as an introduction to Renaissance drama, this course is a study of representative sixteenth- and seventeenth-century plays by such writers as Marlowe, Shakespeare, Jonson, Webster, and Molière.
NOTE: This course may not be taken for credit with ENGL 318.

ENGL 236 ***Plays of the Modern Theatre*** (3 credits)
Designed as an introduction to modern drama, this course is a study of some representative modern plays by such writers as Ibsen, Chekhov, Shaw, O'Neill, Williams, Synge, Beckett, and Pinter.
NOTE: This course may not be taken for credit with ENGL 392.

ENGL 237 ***Children's Literature*** (6 credits)
A survey and analysis of literature for children, undertaken with the aim of developing a critical vocabulary, and of arriving at workable standards of assessment. The kinds of literature discussed include works written for adults, but traditionally read by children as well, works specifically written or adapted for children, fairy tales, and other children's versions of folklore and myth, nursery rhymes, and other children's verse. The course will be of general interest to students of literature, and should prove especially helpful to those who teach children in the schools.

ENGL 238 ***Canadian Children's Literature*** (3 credits)
This course examines the ways in which elements of the Canadian experience, such as language, setting, folklore, and history, have contributed to the content and tradition of children's literature in Canada.

ENGL 248 ***Women Reading/Writing: Feminist Literary Criticism*** (6 credits)
This course conducts a historical and critical investigation of women's writing. It explores the relationships between women's experiences and ideologies of gender, on the one hand, and literary themes, conventions, and the institutions of literary production, on the other. The course also familiarizes students with the theoretical frameworks which inform the study of women in culture and society. Issues of interest include: writing and women's history; gender and reading; the lesbian literary tradition; the intersections of race, class, and gender; psychoanalysis and feminism; feminist-materialist theory; subjectivity and subjection.

ENGL 254 ***Psychology and Literature*** (6 credits)
A study of the relationship between the basic theories of psychology or psychoanalysis and literature through a consideration of selected literary works, such as novels, poems, dramas, and fairy tales.

ENGL 255 ***Translation*** (6 credits)
Prerequisite: Fluency in both French and English. Intensive work to improve the student's skill at translating a variety of texts from French to English. Emphasis is placed on non-literary texts. Training is given in style and idiom. The course helps the student gain proficiency in rendering a variety of French texts into idiomatic English prose.

ENGL 256 ***Major Writers in English*** (6 credits)
An introduction to major periods of English literature through the study of such representative authors as Chaucer, Shakespeare, Marlowe, Jonson, Donne, Milton, Swift, Pope, Blake, Coleridge, Wordsworth, Keats, Shelley, Dickens, Hardy, Browning, Tennyson, Conrad, Lawrence, Yeats, Eliot, Woolf, Joyce.
NOTE: This course may not be taken for credit with ENGL 257 or 258.

ENGL 257 ***Introduction to English Literature I*** (3 credits)
An introduction to Chaucer, Spenser, Shakespeare, Milton, and other major English authors of the Middle Ages and the sixteenth and seventeenth centuries.
NOTE: This course may not be taken for credit with ENGL 256 and 268.

ENGL 258 ***Introduction to English Literature II*** (3 credits)
A continuation of ENGL 257. An introduction to Swift, Pope, Wordsworth, Tennyson, Yeats, T.S. Eliot, and other major English authors of

the eighteenth, nineteenth, and twentieth centuries.
NOTE: This course may not be taken for credit with ENGL 256.

ENGL 260 ***Myth and Ideas in Literature*** (6 credits)
The sources, literary development, and continuing functions of some of the myths which generate our ideas, and some of the ideas which rationalize our myths. In various years the emphasis may be on the history, structure, or continuing creation of myth and ideas.
NOTE: Students who have received credit for ENGL 259 may not take this course for credit.

ENGL 262 ***Medieval Literature in Translation*** (6 credits)
An introductory study of some major works in England and Europe between 400 and 1400, beginning with St. Augustine, and including examples of epic, Grail literature, and courtly romance such as *Beowulf, The Song of Roland, The Cid,* Chrétien de Troyes' *Parsifal, Tristan and Isolde, The Romance of the Rose,* and parts of Dante's *Divine Comedy.*

ENGL 263 ***European Literature from the Middle Ages to the Onset of Modernism*** (6 credits)
A study of some of the classical works of European literature from Dante to Dostoevsky, including such writers as Boccaccio, Rabelais, Cervantes, Rousseau, and Goethe, with emphasis on evolving cultural patterns leading from Faith to Reason, and beyond.

ENGL 267 ***The Origins of Drama*** (6 credits)
An introductory study of Greek and Roman dramatists, and the medieval drama, both English and Continental. The course is concerned with dramatic types, theory and form, and with the significance of this drama to the later English stage.

ENGL 268 ***Masterpieces of English Literature before 1603*** (6 credits)
An introduction to the origin and development of English literature in the Old English, Medieval, and Tudor periods, through a reading of *Beowulf* (in translation), and authors such as Chaucer, Malory, Spenser, More, and Marlowe.
NOTE: This course may not be taken for credit with ENGL 257 and ENGL 318.

ENGL 271 ***Critical Reading*** (3 credits)
A course in practical criticism and evaluation of a variety of literary texts. Students develop their ability to respond to literature clearly and precisely.

ENGL 273 ***Fiction*** (3 credits)
A study of the novel as a literary genre through the reading of novels by authors such as Defoe, Fielding, Austen, Dickens, and Joyce.

ENGL 275 ***Poetry*** (3 credits)
A study of poetry and its forms, with emphasis upon the art of close reading.

ENGL 277 ***Drama*** (3 credits)
A study of a varied selection of plays from both a historical and a generic point of view that introduces students to the problems and delights of reading, visualizing, making, and seeing plays.

ENGL 280 ***Short Fiction*** (3 credits)
A study of forms and techniques of the short story, the novella, and what have come to be called in contemporary literature, "fictions".

ENGL 281 ***Tragedy*** (6 credits)
A study of the varieties of tragic form and sensibility in Western literature. The course includes writers chosen from antiquity to the present, both inside and outside the English tradition, such as Shakespeare, Euripides, Hardy, Tolstoy, Webster, Racine, Faulkner, Buchner, Rilke, and Chekhov.

ENGL 282 ***Comedy*** (6 credits)
A study of the nature and varieties of comic form and sensibility in Western literature. The course includes writers chosen from antiquity to the present, both inside and outside the English tradition, such as Aristophanes, Cervantes, Jonson, Molière, Sterne, Gogol, Leacock, Amis, and Muriel Spark.

ENGL 283 ***Satire*** (6 credits)
A study of the nature and varieties of satire. The course includes writers chosen from antiquity to the present, both inside and outside the English tradition, such as Juvenal, Lucian, Chaucer, Erasmus, Swift, Voltaire, Orwell, Waugh, Beckett, Roth, Richler, and Grass.

ENGL 284 ***Critical Approaches to Literature*** (6 credits)
The practical application to selected works of literature of some of the fundamental methods of criticism such as the psychological, sociological, formalist, archetypal, and structural.

ENGL 290 ***Canadian Literature*** (6 credits)
An introductory survey of Canadian prose and poetry, written in or translated into English, from their origins to the present.
NOTE: This course may not be taken for credit with either ENGL 291 or 292.

ENGL 293 ***Recent Experiments in Canadian Writing*** (3 credits)
A study of recent works of poetry, fiction, and drama, some of which break with traditional notions of genre, form, and content. Attention is paid to the works of authors such as Kroetsch, Ondaatje, Kogawa, Findley, Walker, Tremblay, and Marlatt.

ENGL 298 ***Selected Topics in English*** (3 credits)

ENGL 299 ***Selected Topics in English*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ENGL 300 ***American Literature*** (6 credits)
A survey of the literature of the United States, beginning with the early writers and their optimistic vision of a new society, and studying such problems as the transformation and inversions of the "American Dream" in such writers as Poe, Hawthorne, Melville, Twain, Whitman, and Fitzgerald.
NOTE: This course may not be taken for credit with ENGL 301 or 311.

ENGL 301 ***American Literature: Nineteenth Century*** (3 credits)
A study of major nineteenth-century American writers such as Poe, Thoreau, Emerson, Hawthorne, Melville, Whitman, and Dickinson.
NOTE: This course may not be taken for credit with ENGL 300.

ENGL 303 ***Modern American Literature*** (3 credits)
A study of American literature in the first half of the century by authors such as Fitzgerald, Faulkner, Richard Wright, O'Connor, H.D., Stevens, William Carlos Williams, Moore, O'Neill, and Tennessee Williams.
NOTE: This course may not be taken for credit with ENGL 311.

ENGL 305 ***Modern European Literature*** (6 credits)
A survey of some of the major European writers (in translation) of the last hundred years, including such writers as Dostoevsky, Kafka, Mann, Strindberg, Valéry, Pirandello, Sartre, de Beauvoir, and Brecht.

ENGL 306 ***Modern British and American Literature*** (6 credits)
A study of works in English from what has now emerged as the Modern period, extending from the turn of the century to World War II, and including such writers as Conrad, Joyce, Lawrence, Eliot, Yeats, Dylan Thomas, Stevens, Hemingway, Faulkner, Frost, Mansfield, and Bowen.
NOTE: Students who have received credit for ENGL 304 may not take this course for credit.

ENGL 307 ***Modern Fiction I*** (3 credits)
A study of major American and European fiction writers of the earlier Modern period, such as Melville, Dostoevsky, Tolstoy, James, Kafka, Joyce, Mann, and Faulkner.

ENGL 308 ***Modern Fiction II*** (3 credits)
A study of major American and European fiction writers of the later Modern period such as Malraux, Camus, Flannery O'Connor, Solzhenitsyn, Bellow, Pynchon, Marquez, and Calvino.

ENGL 309 ***Contemporary American Literature*** (3 credits)
A study of American literature in the last half of the century by authors such as Burroughs, Bellow, Barthelme, Morrison, Plath, Bishop, Ashbery, Albee, Mamet, and Shepard.
NOTE: This course may not be taken for credit with ENGL 311.
NOTE: Students who have received credit for ENGL 319 may not take this course for credit.

ENGL 311 ***American Literature: Twentieth Century*** (6 credits)
A study of major twentieth-century American writers such as Fitzgerald, Hemingway, Faulkner, Stevens, Frost, Porter, and Plath.
NOTE: This course may not be taken for credit with ENGL 303 and ENGL 309.
NOTE: Students who have received credit for ENGL 302 may not take this course for credit.

ENGL 312 ***Chaucer*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of the major poetry of Chaucer, emphasizing *The Canterbury Tales* and *Troilus and Criseyde.*
NOTE: A maximum of six credits may be taken from ENGL 312, 313, and 314.
NOTE: Students who have received credit for ENGL 310 may not take this course for credit.

ENGL 313 ***Chaucer I: Canterbury Tales*** (3 credits)
A study of Canterbury Tales in general, and particular tales.
NOTE: A maximum of six credits may be taken from ENGL 312, 313, and 314.
NOTE: Students who have received credit for ENGL 310 or 312 may not take this course for credit.

ENGL 314 ***Chaucer II: Troilus and Discursive Poems*** (3 credits)
A study of *Troilus and Criseyde* and selected shorter poems.
NOTE: A maximum of six credits may be taken from ENGL 312, 313, and 314.
NOTE: Students who have received credit for ENGL 310 or 312 may not take this course for credit.

ENGL 315 ***Sixteenth-Century Literature*** (6 credits)
Prerequisite: Six credits in English Literature and permission of the Department. A study of sixteenth-century literature as represented by such writers as Wyatt, Sidney, Spenser, More, Bacon, and Marlowe; and by drama to revenge tragedy.
NOTE: This course may not be taken for credit with ENGL 316 and 317.

ENGL 316 ***Spenser*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. This course is intended to examine Spenser's works – *The Amoretti* and *The Faerie Queene* in particular — and their relations to the pertinent literary traditions, both English and Continental.

ENGL 317 ***Elizabethan Prose and Poetry*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. Significant works of Elizabethan non-dramatic literature are studied both as individual creations and as samples of the most important trends in non-dramatic verse and prose of the time.
NOTE: This course may not be taken for credit with ENGL 315.

ENGL 318 ***English Renaissance Drama*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. The golden age of English drama from 1485 to 1642; the Tudor interlude; the development of comedy, tragedy, and other dramatic forms in the Elizabethan and Jacobean periods. Plays are selected from authors such as Peele, Kyd, Greene, Marlowe, Chapman, Dekker, Middleton, Jonson, Beaumont and Fletcher, Webster, Marston, Ford, and Shirley. Some consideration is given to Shakespeare.
NOTE: This course may not be taken for credit with ENGL 235.

ENGL 320 ***Shakespeare*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of Shakespeare's artistic achievement and its background. Works are chosen from different periods and genres.

ENGL 326 ***Seventeenth-Century Literature*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. This course places major emphasis on the poetry of Milton. Poetry and prose are selected from among such writers as Jonson, Donne, Herbert, Browne, Marvell, and Herrick.
NOTE: This course may not be taken for credit with ENGL 327 or 328.

ENGL 327 ***Seventeenth-Century Poetry*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of the lyrics of such poets as Jonson, Donne, Herbert, Marvell, and Traherne.
NOTE: This course may not be taken for credit with ENGL 326.

ENGL 328 ***Milton: Paradise Lost*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. This course studies *Paradise Lost* in detail and may include a consideration of other works by Milton.
NOTE: This course may not be taken for credit with ENGL 326.

ENGL 329 ***Milton II: Paradise Regained, and Other Writings*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. This course examines Milton's work in a variety of genres: tragedy (*Samson Agonistes*), post-1645 sonnets, epic (*Paradise Regained*), and selections from the prose essays and tracts.

ENGL 332 ***Literature of the Restoration and Eighteenth Century*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of poetry and prose from the 1660's to the 1780's, including such major writers as Dryden, Swift, Pope, and Johnson.
NOTE: A maximum of six credits may be taken from ENGL 332, 333, and 334.

ENGL 333 ***Literature of the Restoration and Early Eighteenth Century*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. Major Augustan authors, including Dryden, Swift, and Pope.
NOTE: A maximum of six credits may be taken from ENGL 332, 333, and 334.

ENGL 334 ***Eighteenth-Century Literature*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of major authors of the eighteenth century, such as Swift, Richardson, Fielding, and Johnson.
NOTE: A maximum of six credits may be taken from ENGL 332, 333, and 334.

ENGL 335 ***Restoration and Eighteenth-Century Drama*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of the English stage from Dryden to Sheridan, including such dramatists as Etherege, Otway, Wycherley, Vanbrugh, Congreve, Gay, Lillo, and Goldsmith.

ENGL 338 ***Literature of the Romantic Period*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of poetry and prose, chiefly that of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.
NOTE: A maximum of six credits may be taken from ENGL 338, 339, and 340.

ENGL 339 ***The Romantics I*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. The course surveys the major poets of the first part of the Romantic period (Blake, Wordsworth, Coleridge), with historical background and

emphasis on the common technical and thematic elements of Romantic poetry.
NOTE: A maximum of six credits may be taken from ENGL 338, 339, and 340.

ENGL 340 ***The Romantics II*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. The course surveys the major poets of the second part of the Romantic period (Byron, Shelley, and Keats), with historical background and emphasis on the common technical and thematic elements of Romantic poetry.
NOTE: A maximum of six credits may be taken from ENGL 338, 339, and 340.

ENGL 342 ***Victorian Literature*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of English poetry and prose from the 1830's to the end of the nineteenth century, including such major writers as Tennyson, R. Browning, Hopkins, Carlyle, Gaskell, Ruskin, Dickens, Thackeray, and George Eliot.
NOTE: A maximum of six credits may be taken from ENGL 342, 343,and 344.

ENGL 343 ***Victorian Prose*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of Victorian prose writers such as Dickens, George Eliot, Thackeray, Carlyle, Newman, Arnold, and Mill.
NOTE: A maximum of six credits may be taken from ENGL 342, 343, and 344.

ENGL 344 ***Victorian Poetry*** (3 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of Victorian poets such as Tennyson, Browning, Hopkins, Swinburne, and Hardy.
NOTE: A maximum of six credits may be taken from ENGL 342, 343, and 344.

ENGL 347 ***English Fiction from Defoe to Scott*** (6 credits)
A study of the origins and early development of English fiction, focusing on such forms as the epistolary, the picaresque, the Gothic and the historical novel, and such writers as Defoe, Fielding, Richardson, Smollett, Sterne, Radcliffe, Burney, Godwin, Mary Shelley, Edgeworth, Austen, and Scott.

ENGL 348 ***English Fiction from Dickens to Hardy*** (6 credits)
This course stresses the development and diversity of the Victorian novel through a study of works by such writers as Dickens, Gaskell, the Brontës, Thackeray, Eliot, Trollope, Meredith, and Hardy. Some attention may be given to the growth of experimental, non-realistic, and popular forms of fiction such as the fantasy, the mystery, and the adventure.

ENGL 352 ***Late Victorian Literature*** (3 credits)
In nineteenth-century art we find both witty sophistication and anxiety at the collapse of traditional values. Writers such as Butler, Hopkins, Pater, early James, Wilde, and Gissing are considered as they respond in various ways to their age and a sense of imminent crisis.
NOTE: Students who have received credit for ENGL 350 may not take this course for credit.

ENGL 353 ***English Literature from the Edwardian Era to World War I*** (3 credits)
A study of the traditionalism and experimentation characteristic of the literature of this period. Writers such as the later James, Conrad, Madox Ford, E.M. Forster, Shaw, Wells, Rebecca West, the early Lawrence, early Woolf, Housman, and Wilfred Owen are considered.
NOTE: Students who have received credit for ENGL 350 may not take this course for credit.

ENGL 355 ***Yeats and Joyce*** (3 credits)
This course focuses on Yeats and Joyce in the context of their Anglo-Irish contemporaries.
NOTE: Students who have received credit for ENGL 354 may not take this course for credit.

ENGL 356 ***Twentieth-Century British Literature*** (6 credits)
A study of twentieth-century British authors such as Joyce, Yeats, Woolf, Shaw, E.M. Forster, Waugh, T.S. Eliot, Auden, and Lessing.
NOTE: This course may not be taken for credit with ENGL 357 or 358.
NOTE: Students who have received credit for ENGL 286 may not take this for credit.

ENGL 357 ***Modern British Literature*** (3 credits)
A study of modern British authors, such as Hardy, Hopkins, Conrad, Lawrence, E.M. Forster, Woolf, Yeats, and T.S. Eliot.
NOTE: This course may not be taken for credit with ENGL 356.
NOTE: Students who have received credit for ENGL 287 may not take this course for credit.

ENGL 358 ***Contemporary British Literature*** (3 credits)
A study primarily of post-World War II British authors such as Auden, Thomas, Beckett, Pinter, Lessing, and Murdoch.
NOTE: This course may not be taken for credit with ENGL 356.
NOTE: Students who have received credit for ENGL 288 may not take this course for credit.

ENGL 359 ***Twentieth-Century British Drama*** (3 credits)
A study of the plays of major British dramatists from the early part of the century to the present, such as Shaw, Wesker, Osborne, Bond, Pinter, Orton, and Churchill.

ENGL 360 ***World Literature Written in English I*** (3 credits)
Selected novels, short stories, and poetry from West Africa, East Africa, and the Caribbean.
NOTE: Students who have received credit for ENGL 295 may not take this course for credit.

ENGL 361 ***World Literature Written in English II*** (3 credits)
Selected novels, short stories, and poetry from South Africa, Zimbabwe, India, Australia, and New Zealand.
NOTE: Students who have received credit for ENGL 296 may not take this course for credit.

ENGL 365 ***Twentieth-Century American Fiction*** (3 credits)
A study of major American fiction writers from the beginning of the century to the present, such as Dreiser, Dos Passos, Cather, Hemingway, Steinbeck, Faulkner, O'Connor, Morris, and Barth.
NOTE: Students who have received credit for ENGL 363 or 364 may not take this course for credit.

ENGL 366 ***Twentieth-Century British Fiction*** (3 credits)
A study of the works of major British fiction writers from the early part of the century to the present, such as Conrad, E.M. Forster, Waugh, Woolf, Lawrence, Spark, Murdoch, and Drabble.

ENGL 367 ***American Poetry*** (3 credits)
A study of the theory and practice of the major American poets since the mid-nineteenth century. Particular emphasis is placed on poets such as Whitman, Dickinson, Frost, Cummings, Williams, Stevens, Pound, Crane, Eliot, and H.D., with some attention paid to developments in contemporary poetry as well.

ENGL 369 ***American Drama*** (3 credits)
A study of the plays of major American dramatists such as O'Neill, Williams, Miller, Albee, and Sam Shepard.

ENGL 370 ***Canadian Fiction: Beginnings through World War II*** (6 credits)
A study of the themes and technical strategies of Canadian fiction in its formative period, including romance, naturalism, documentary, autobiography, fable, and myth. Texts are drawn from authors such as Haliburton, Moodie, Duncan, Leacock, Grove, Callaghan, Ostenso, Ross, and Lowry.
NOTE: Students who have credit for ENGL 376 and 377 may not take this course for credit.

ENGL 371 ***Postwar Canadian Fiction*** (3 credits)
A study of modern Canadian fiction through the 50's to the mid-60's as it incorporates the lyrical and documentary, the universal and the regional, the traditional and the experimental. Authors may include Roy, Wilson, Buckler, MacLennan, Watson, and Richler.

ENGL 372 ***Contemporary Canadian Fiction*** (3 credits)
A study of continuity and development in modern Canadian fiction from the mid-60's to the present. Authors may include Laurence, Gallant, Atwood, Davies, Carrier, Hodgins, Wiebe, and Munro.

ENGL 375 ***Modern Canadian Poetry and its Roots*** (6 credits)
A study of poets such as Pratt, Klein, Page, Livesay, Birney, Layton, Purdy, Webb, Atwood, and Ondaatje with their predecessors among the poets of Confederation.

ENGL 379 ***Canadian Drama*** (3 credits)
A study of several twentieth-century Canadian playwrights such as George F. Walker, George Ryga, Bryan Wade, Ken Gass, Michel Tremblay, and Sharon Pollock who, taken together, represent such conflicts in Canadian art as regionalism and internationalism, realism and experimentation.

ENGL 381 ***Women's Writing Before the Twentieth Century*** (3 credits)
The course offers a historical survey of women's writing in a variety of genres: novelistic fiction, poetry, personal prose, drama, and polemical exposition. While considering individual works in terms of their formal and thematic properties, and in the context of social and literary history, the course also pursues a feminist interrogation of the issues described in ENGL 248. Writers studied may include: Anne Finch, Aphra Behn, Mary Wollstonecraft, Jane Austen, the Brontës, Susanna Moodie, Elizabeth Barrett Browning, George Eliot, Emily Dickinson, Kate Chopin.
NOTE 1: Students are strongly advised to take ENGL 248 before taking this course.
NOTE 2: Students who have received credit for ENGL 251 may not take this course for credit.

ENGL 382 ***Women's Writing in the Twentieth Century*** (6 credits)
The course surveys twentieth-century writing by women, primarily in fiction, poetry, and drama. While considering these contemporary works in terms of their formal and thematic properties, and in the context of social and literary history, the course also pursues a feminist interrogation of the issues described in ENGL 248. Writers studied may include: Gertrude Stein, Virginia Woolf, H.D., Dorothy Livesay, Adrienne Rich, Sylvia Plath, Doris Lessing, Sharon Pollack, Alice Munro, Toni Morrison.
NOTE 1: Students are strongly advised to take ENGL 248 before taking this course.
NOTE 2: Students who have received credit for ENGL 252 may not take this course for credit.

ENGL 384 ***Studies in Rhetoric*** (3 credits)
An inquiry into the nature and function of rhetoric, the art of convincing others, through an examination of such influential classical rhetoricians as Aristotle, Cicero, and Quintilian,

as well as the place of rhetoric in contemporary critical discourse. This course offers, through written exercises, practical experience in the development of rhetorical techniques.
NOTE: Students who have received credit for ENGL 215 may not take this course for credit.

ENGL 385 ***The Bible and English Literature*** (6 credits)
A study of the literary handling of Biblical material and the literary uses of Biblical allusion in English literature by authors such as Milton, Bunyan, Blake, Byron, and T.S. Eliot.

ENGL 387 ***The Aesthetic and Religious Experience in Literature*** (6 credits)
An interdisciplinary course which explores the relationships between literature and religion through practical criticism, literary theory, aesthetics, and theology.

ENGL 388 ***History of Criticism and Literary Theory*** (3 credits)
A study of the major theories of criticism in their historical and literary contexts from the Classical period to the mid-twentieth century. Texts are chosen from among such representative writers as Aristotle, Quintilian, Dante, Tasso, Sidney, Dryden, Johnson, Lessing, Coleridge, Arnold, James, Richards, Eliot, Leavis.

ENGL 389 ***Contemporary Critical Theory*** (3 credits)
Prerequisite: At least nine credits in Period courses, three of these nine credits in the twentieth century; ENGL 305^{6}, 307^{3}, 308^{3}, 355^{3}, 369^{3}, 371^{3}, 372^{3}, 379^{3}, 390^{6}, 392^{6}, 459^{6}. An examination of various contemporary critical theories: formalist, deconstructionist, Marxist, feminist, phenomenological, psychoanalytical. Texts are chosen from the writings of such theorists as Bakhtin, Frye, Todorov, Booth, Bachelard, Barthes, Foucault, Derrida, Kristeva, Jameson.

ENGL 390 ***Modern Poetry*** (6 credits)
An examination of the characteristic elements of twentieth-century poetry, in the context of a study of such poets as Yeats, Eliot, Pound, Stevens, Rilke, Celan, Birney, Avison, and Bowering.

ENGL 392 ***Modern Drama*** (6 credits)
A study of the main currents in Western drama since Ibsen. This course includes such representative playwrights as Chekhov, Lorca, Strindberg, Pirandello, O'Neill, Brecht, Pinter, Beckett, and Weiss.
NOTE: This course may not be taken for credit with ENGL 236.

ENGL 393 ***History and Structure of the English Language*** (3 credits)
The course deals with the linguistic and historic development of the English language. The influence of language changes upon the literature is also considered.

ENGL 394 ***English Prose Style*** (3 credits)
This course is designed to introduce students to the experience and assessment of the subtleties and varieties of prose style within the English tradition. It includes selections from the works of distinguished prose stylists.

ENGL 395 ***Science Fiction*** (6 credits)
An exploration of the varieties and nature of science fiction from H.G. Wells to Ursula LeGuin. Readings include examples of English and American science fiction and translations of foreign works. Among the authors studied are Huxley, Orwell, Zamyatin, Jack London, Capek, Borges, Calvino, and Lem.

ENGL 396 ***Advanced Composition*** (6 credits)
Prerequisite: ENGL 211 previously or ENGL 212, ENGL 213. This course is designed for students already in control of the basic techniques of composition and who wish to perfect their ability to write clearly and effectively for business and professional purposes.
NOTE 1: Students who have received credit for this course may not subsequently take any ESL course or ENGL 205, 206, 209, 212, or 213.
NOTE 2: Unless ENGL 212 and ENGL 213 have been completed previously, students must take a placement test before registering for this course.

ENGL 398 ***Selected Topics in English*** (3 credits)

ENGL 399 ***Selected Topics in English*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ENGL 410 ***Non-Fiction Writing*** (6 credits)
Prerequisite: ENGL 225 or ENGL 226 or ENGL 227, or permission of the Department. A workshop for students who intend to become professional writers of the forms of non-fiction (such as journals, personal essays, biographies, autobiographies, and reviews).

ENGL 411 ***Script Writing for Radio, Screen, and Television*** (6 credits)
Prerequisite: ENGL 225 or ENGL 226 or ENGL 227, or permission of the Department. A workshop for the composition and development of creative scripts for radio, screen, and television. In any one year, the course may concentrate on one or two of these areas.

ENGL 412 ***Writing of Children's Literature*** (6 credits)
Prerequisite: ENGL 225 or ENGL 226 or ENGL 227, or permission of the Department. A workshop in the writing of prose, poetry, and

drama for children. This course involves an exploration of the literary techniques appropriate to the sensibilities of children and their world.

ENGL 413 ***Editing, Publishing, and Creative Research*** (6 credits)
Prerequisite: Permission of the Department. This course deals with such areas as magazines, small presses, and anthologies, that stimulate and promote literary activity. Emphasis is also given to the research problems peculiar to the creative writer.

ENGL 414 ***Translation of Literary Texts*** (6 credits)
Prerequisite: Permission of the Department. Advanced workshop in the translation of literary texts. The emphasis is on re-creation in English of French source-texts, but other source-languages may be included, depending on the special competence of the instructor. Students are expected to be fluently bilingual and to have some experience in translating literary texts. The course is part of the Creative Writing programme and is not intended for students to upgrade their bilingualism.

ENGL 425 ***Advanced Creative Writing: Poetry*** (6 credits)
Prerequisite: ENGL 225 or approved work. A workshop in the writing of poetry. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its material and techniques, to demonstrate their further progress in the craft.

ENGL 426 ***Advanced Creative Writing: Prose*** (6 credits)
Prerequisite: ENGL 226 or approved work. A workshop in the writing of fiction. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its materials and techniques, to demonstrate their further progress in the craft.

ENGL 427 ***Advanced Creative Writing: Drama*** (6 credits)
Prerequisite: ENGL 227 or approved work. A workshop in the writing of plays. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its materials and techniques, to demonstrate their further progress in the craft.

ENGL 430 ***Old English*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of the language and literature of the Anglo-Saxon era, chiefly of the *Beowulf* epic.

ENGL 432 ***Middle English Literature*** (6 credits)
Prerequisite: Six credits in English Literature or permission of the Department. A study of literature written in the English dialects from 1200 to 1500, including works such as *Sir Gawain and the Green Knight* and other romances, early lyrics, religious prose, drama, and selections from Layamon's *Arthurian Brut*, Langland's *Piers Plowman*, and Malory's *Morte D'Arthur*.

ENGL 440 ***The Literatures of Canada and the United States*** (6 credits)
Prerequisite: ENGL 290 or ENGL 300 or ENGL 301; ENGL 302. It is to the student's advantage to enter this course with knowledge of both literatures. Studies in common and contrasting problems in the two national literatures.

ENGL 459 ***Contemporary Literature*** (6 credits)
Prerequisite: Six credits in modern literature. A study of poetry, prose fiction, and drama, written in or translated into English since the Second World War. This course is intended for students whose exploration of modern literature has already suggested to them something of the radical experimentation in form which characterizes contemporary literature.

ENGL 470 ***Honours Seminar*** (3 credits)
Prerequisite: Enrolment in Honours English, 24 credits in English and permission of the Department. Exceptional students not enrolled in Honours English may be admitted. The topics of the seminar vary from year to year. The seminars focus upon an oral presentation by each student.
NOTE: Enrolment is limited. Students should apply to the Department one term in advance.

ENGL 471 ***Independent Studies*** (3 credits)
Prerequisite: Enrolment in an English programme or nine credits in English Literature. A tutorial programme arranged with a member of the Department.
NOTE: This course may not be taken for credit with ENGL 473.
NOTE: Students who have received credit for ENGL 478 may not take this course for credit.

ENGL 472 ***Independent Studies*** (3 credits)
Prerequisite: Enrolment in an English programme or nine credits in English Literature. A tutorial programme arranged with a member of the Department.
NOTE: This course may not be taken for credit with ENGL 473.
NOTE: Students who have received credit for ENGL 478 may not take this course for credit.

ENGL 473 ***Independent Studies*** (6 credits)
Prerequisite: Enrolment in an English programme or nine credits in English Literature. A tutorial programme arranged with a member of

the Department.
NOTE: This course may not be taken for credit with ENGL 471 or 472.
NOTE: Students who have received credit for ENGL 479 may not take this course for credit.

ENGL 474 ***Honours Essay*** (3 credits)
Prerequisite: Enrolment in an English programme or nine credits in English Literature. A tutorial programme arranged with a member of the Department.
NOTE: Students who have received credit for ENGL 480 may not take this course for credit.

ENGL 477 ***Advanced Stylistics*** (3 credits)
Prerequisite: ENGL 271 or permission of the Department. This course concentrates on the strategies of style through analytical study of the components of discourse such as diction, sentence structure, and paragraph formation.

ENGL 490 ***Joint Tutorial in History and English*** (6 credits)
Prerequisite: Enrolment in an English programme or nine credits in English Literature. A tutorial for students in an English and History Joint Honours programme.

ENGL 491 ***Joint Tutorial in Modern Languages and English*** (6 credits)
Prerequisite: Enrolment in an English programme or nine credits in English Literature. A tutorial for students in an English and Modern Languages Joint Honours programme.

ENGL 496 ***Advanced Research and Thesis*** (6 credits)
Prerequisite: Enrolment in an English programme or nine credits in English Literature. A small number of seminars or tutorials on special themes and topics, to vary each year. Registration is limited to Honours students in their final year. All students must consult in advance with the Department.

ENGL 498 ***Advanced Topics in English*** (3 credits)

ENGL 499 ***Advanced Topics in English*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.110 ÉTUDES FRANÇAISES

Faculty

Directeur
PIERRE L'HÉRAULT, *Professeur titulaire*

Professeure titulaire et professeur titulaire
GASTON LAURION
MAÏR VERTHUY

Professeur au Conservatoire d'art cinématographique, Campus Sir George Williams
SERGE LOSIQUE

Professeures agrégées et professeurs agrégés
MARTHE J. CATRY-VERRON
GILLES CHARPENTIER
JEAN-MARC GOUANVIC
CLAIRE LE BRUN
LUCIE LEQUIN, *Études françaises et Institut Simone de Beauvoir*
DAVID LÉVY
MARIE-FRANÇOISE LIGIER
PIERRE PARÉ
SHERRY SIMON
LEONARD SUGDEN
MAYLIS TIFFOU
NORMAND TRUCHON
MARIE-FRANCE WAGNER
JUDITH WOODSWORTH

Professeures adjointes
LOUISE BRUNETTE
CATHERINE MAVRIKAKIS

Chargé d'enseignement
GILBERT MONGENOT

Localisation

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(514) 848-7513

Campus Sir George Williams
J.W. McConnell, Salle: 631-10
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Objectifs du département

L'appellation Études françaises reflète le concept pluridisciplinaire sur lequel se fondent les deux volets de notre mission universitaire: l'enseignement et la recherche. La recherche pure et appliquée se pratique dans les domaines les plus variés de la discipline en étroite liaison avec l'enseignement. De plus, nous participons à la vie intellectuelle et professionnelle de la collectivité, à l'échelle nationale et internationale.
Le département d'Études françaises a une double vocation. Il offre d'une part de solides programmes de langue, littérature, traduction et didactique aux étudiantes et étudiants qui viennent y chercher une formation spécialisée. Il joue d'autre part un rôle capital au sein de l'Université en offrant un vaste éventail de cours de langue, linguistique, littérature et civilisation aux étudiantes et étudiants qui souhaitent compléter la formation qu'elles ou ils reçoivent dans d'autres départements.

Programmes

Il appartient à chaque étudiante et étudiant de remplir toutes les conditions requises dans son programme. L'exposant 3 ou 6 indique le nombre de crédits.
N.B.: Chaque candidate et candidat aux programmes de traduction devrait inclure à son dossier une lettre d'intention rédigée dans sa langue principale.

72 BA Honneurs en littératures française et anglaise
- 6 crédits ENGL à choisir parmi les cours 256 à 284
- 6 crédits ENGL à choisir parmi les cours 290[6], 293[3], 298[3], 299[6], 300[6], 301[3], 303[3], 305[6], 306[6], 311[6], 356[6], 357[3], 358[3], 360[3], 361[3], 370[6], 371[3], 372[3], 375[6], 390[6], 392[6]
- 6 crédits ENGL à choisir parmi les cours 312[6], 313[3], 314[3], 316[3], 320[6], 327[3], 328[3]
- 12 crédits ENGL à choisir, en accord avec les deux départements, dans des périodes et des genres correspondants
- 18 crédits FRAN à choisir parmi les cours 252[3], 253[3], 270[3], 271[3], 321[3], 322[3], 402[6]
- 12 crédits FRAN à choisir, en accord avec les deux départements, dans des périodes et des genres correspondants
- 6 crédits FRAN ou ENGL, à choisir hors des périodes et des genres précédemment approuvés
- 6 crédits à choisir entre ENGL 473[6] et FRAN 496[6]

N.B.: Le cours FRAN 496[6] a pour préalable 12 crédits dans la spécialité.
N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné de chacun des deux départements.

60 BA Honneurs en littératures de langue française
- 12 crédits choisis dans les groupes A, B et C; six crédits au maximum dans un groupe

Groupe A
FRAN 266[3] et 267[3], ou 402[6], ou 470[3] et 471[3]
Groupe B
FRAN 370[3], 371[3], 372[3], 478[3], 479[3], 480[3], 489[6]
Groupe C
FRAN 252[3], 253[3], 256[3], 257[3], 270[3], 271[3], 321[3], 322[3], 451[3], 476[3], 477[3]

9 crédits en littérature française du Moyen Âge et du 16e siècle
9 crédits en littérature française des 17e et 18e siècles
18 crédits en littératures de langue française des 19e et 20e siècles
6 crédits FRAN 496[6]
6 crédits au choix en littératures de langue française

N.B.: Le cours FRAN 496[6] a pour préalable 12 crédits dans la spécialité.
N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

60 BA Spécialisation en littératures de langue française

12 crédits choisis dans les groupes A, B et C; six crédits au maximum dans un groupe
Groupe A
FRAN 266[3] et 267[3], ou 402[6], ou 470[3] et 471[3]
Groupe B
FRAN 370[3], 371[3], 372[3], 478[3], 479[3], 480[3], 489[6]
Groupe C
FRAN 252[3], 253[3], 256[3], 257[3], 270[3], 271[3], 321[3], 322[3], 451[3], 476[3], 477[3]
9 crédits en littérature française du Moyen Âge et du 16e siècle
9 crédits en littérature française des 17e et 18e siècles
18 crédits en littératures de langue française des 19e et 20e siècles
6 crédits FRAN 496[6]
6 crédits hors du département d'Études françaises choisis en consultation avec le département dans des domaines connexes

N.B.: Le cours FRAN 496[6] a pour préalable 12 crédits dans la spécialité.
N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

45 BA Majeure en études françaises
Option: Langue
1ère étape

15 Un maximum de 15 crédits choisis parmi FRAN 254[3], 255[3], 301[6], 302[3], 303[3], 305[3], 306[3], 308[6], 310[3], 311[3], 312[3], 313[3], 316[3], 317[3], 318[3], 319[3]; six crédits au maximum en «langue de spécialité» (310 à 319).

2e étape
6 crédits FRAN à choisir parmi les cours 400[3], 401[3], 402[6], 403[3], 406[3], 407[3]
6 crédits FRAN à choisir parmi les cours 252[3] et 253[3], ou 321[3] et 322[3]
3e étape
18 crédits FRAN à choisir parmi les cours 264[3], 265[3], 266[3], 267[3], 269[3], 270[3], 271[3], 400[3], 401[3], 402[6], 403[3], 404[3], 405[3], 406[3], 407[3], 409[3], 410[3], 412[3], 413[3], 414[3], 415[3], 418[3], 419[3], 466[3], 467[3], 468[3], 469[3], 470[3], 471[3], 489[6]

N.B.: Les étudiantes et étudiants commençant le programme à la deuxième étape doivent obtenir 33 crédits à la troisième étape.
N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

45 BA Majeure en études françaises
Option: Littérature

6 crédits FRAN à choisir parmi les cours 400[3], 401[3], 402[6], 403[3], 406[3], 407[3]
6 crédits FRAN à choisir parmi les cours 252[3] et 253[3], ou 321[3] et 322[3]
27 crédits en littératures de langue française
6 crédits en littérature française pour les étudiantes et étudiants qui auront suivi FRAN 252[3] et 253[3] ou six crédits en littérature québécoise pour les étudiantes et étudiants qui auront suivi FRAN 321[3] et 322[3]

N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

48 BA Majeure en études françaises
Option: Traduction
1ère étape
6 crédits ENGL 212[3] et 213[3]
6 crédits FRAN à choisir parmi les cours 301[6], 302[3], 303[3], 306[3], 400[3], 401[3]
2e étape
6 crédits FRAN à choisir parmi les cours 252[3] et 253[3], ou 321[3] et 322[3]
6 crédits FRAN à choisir parmi les cours 400[3], 401[3], 402[6], 403[3], 406[3], 407[3]
6 crédits TRAD 200[3], et 201[3] ou 202[3]
3e étape
9 crédits TRAD à choisir parmi les cours 301[3] ou 302[3], 303[3] ou 304[3], 310[3], 311[3], 403[3] ou 404[3], 405[3] ou 406[3], 408[3]
3 crédits TRAD à choisir parmi les cours 412[3] et 414[3]
6 crédits en littérature d'expression anglaise

N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

45 BA Majeure en études françaises
Option: Enseignement du français
1ère étape

6 crédits FRAN à choisir parmi les cours

252[3] et 253[3], ou 321[3] et 322[3]
6 crédits FRAN à choisir parmi les cours 400[3], 401[3], 402[6], 403[3], 406[3], 407[3]
2e et 3e étapes
6 crédits FRAN à choisir parmi les cours 264[3], 265[3], 266[3], 267[3]
6 crédits FRAN à choisir parmi les cours 467[3], 468[3], 469[3], 470[3], 471[3]
3 crédits FRAN 381[3]
6 crédits FRAN 382[3], 385[3]
6 crédits TESL 341[3], 415[3]
3 crédits ADED choisis en accord avec le département d'Études françaises
3 crédits FRAN 488[3]

N.B.: Il est à noter que cette majeure en enseignement du français ne mène pas à un permis d'enseigner dans les écoles primaires et secondaires.
N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

42 BA Majeure en études françaises
Option: Études francophones
6 crédits FRAN à choisir parmi les cours 252[3] et 253[3], ou 321[3] et 322[3]
6 crédits FRAN à choisir parmi les cours 400[3], 401[3], 402[6], 403[3], 406[3], 407[3]
6 crédits FRAN 364[3], 365[3]
18 crédits FRAN à choisir parmi les cours 256[3], 257[3], 360[3], 361[3], 462[3], 463[3], et les cours de littérature québécoise (trois crédits au maximum) et de littérature française (trois crédits au maximum)
6 crédits FRAN à choisir parmi les cours 493[6], 494[3], 495[3], 496[6]

N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

63 BA Spécialisation en traduction
N.B.: 1. Le BA Spécialisation en traduction est un programme contingenté. Comme il demande une excellente connaissance du français et de l'anglais, les étudiantes et étudiants admis devront subir des tests de placement dans les deux langues. Les cours TRAD sont réservés en priorité aux étudiantes et étudiants inscrits dans les programmes de traduction.
2. Le programme comporte deux options: la traduction du français vers l'anglais ou de l'anglais vers le français. Normalement, l'étudiante ou l'étudiant choisira l'une ou l'autre de ces deux options. Dans de rares cas, certaines candidates et certains candidats pourront satisfaire aux exigences des deux options.
3. Les étudiantes et étudiants du programme de BA Spécialisation en traduction doivent obtenir une note minimale de C dans tous les cours de traduction. Si la note obtenue est inférieure à C, les étudiantes et étudiants devront reprendre le cours dans l'année qui suit. Une seule reprise est permise. Si cette exigence n'est pas satisfaite ou en cas d'échec, les étudiantes et étudiants seront radiés du programme. En cas de probation ou de radiation, les étudiantes et étudiants recevront un avis écrit de la direction du département.
Option A: français-anglais
1ère étape
6 crédits FRAN à choisir parmi les cours 400[3] et 401[3], 402[6] ou 406[3] et 407[3] ou 470[3] et 471[3]
N.B.: Une étudiante ou un étudiant qui, à l'examen d'admission, n'a pas obtenu une note lui permettant de suivre les cours de niveau 400 peut s'inscrire au(x) cours FRAN 301[6] ou 302[3] et 303[3] ou 306[3] et suivre les cours ci-dessus en 2e année au plus tard.
6 crédits ENGL 212[3] et 213[3]
12 crédits en littératures de langue française
6 crédits TRAD 200[3] et 201[3]
2e étape
6 crédits TRAD 301[3] et 303[3]
6 crédits TRAD 310[3] et 311[3]
6 crédits de linguistique choisis en consultation avec la conseillère pédagogique ou le conseiller pédagogique
3e étape
3 crédits TRAD à choisir parmi les cours 403[3], 405[3], et 408[3]
3 crédits TRAD à choisir entre les cours 412[3] et 414[3]
6 crédits à choisir entre TRAD 401[3] et ENGL 477[3], ou 396[6]
3 crédits TRAD 409[3]
Option F: anglais-français
1ère étape
6 crédits FRAN à choisir parmi les cours 400[3] et 401[3], 402[6], ou 406[3] et 407[3] ou 470[3] et 471[3]
6 crédits ENGL 212[3] et 213[3]
N.B.: Une étudiante ou un étudiant qui n'est pas admissible au cours ENGL 212[3] peut s'inscrire aux cours ESL 209[3] et 210[3] ou ENGL 205[3] et 206[3] et suivre les cours ENGL 212[3] et 213[3] en 2e année au plus tard.
12 crédits en littératures de langue française
6 crédits TRAD 200[3] et 202[3]
2e étape
6 crédits TRAD 302[3] et 304[3]
6 crédits TRAD 310[3] et 311[3]
6 crédits en linguistique en consultation avec la conseillère pédagogique ou le conseiller pédagogique
3 crédits FRAN 403[3]
3e étape
3 crédits TRAD à choisir parmi les cours 404[3], 406[3], 408[3]
3 crédits TRAD 410[3]
3 crédits TRAD à choisir entre les cours 412[3] et 414[3]

3 crédits à choisir entre les cours TRAD 402[3] et FRAN 415[3]

N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

24 Mineure en langue française

24 crédits de langue, choisis dans un ordre accepté par le département, parmi les cours suivants:

• Un maximum de 18 crédits FRAN à choisir parmi les cours 213[3], 214[3], 215[3], 216[3], 217[3], 218[3], 270[3], 271[3], 301[6], 302[3], 303[3], 305[3], 306[3], 308[6], 310[3], 311[3], 312[3], 313[3], 316[3], 317[3], 318[3], 319[3]; six crédits au maximum en «langue de spécialité» (310 à 319).

• Un minimum de six crédits FRAN à choisir parmi les cours 264[3], 265[3], 266[3], 267[3], 400[3], 401[3], 404[3], 405[3], 406[3], 407[3], 409[3], 410[3], 412[3], 413[3], 414[3], 415[3], 418[3], 419[3], 466[3], 467[3], 470[3], 471[3], 489[6].

N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

24 Mineure en littératures de langue française

24 crédits en littératures de langue française choisis en consultation avec le département

N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

30 Certificat en langue française

30 crédits FRAN, choisis dans un ordre accepté par le département, à un niveau supérieur à 211.

Un minimum de six crédits FRAN à choisir parmi les cours 264[3], 265[3], 266[3], 267[3], 400[3], 401[3], 404[3], 405[3], 406[3], 407[3], 409[3], 410[3], 412[3], 413[3], 414[3], 415[3], 418[3], 419[3], 466[3], 467[3], 470[3], 471[3].

N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département.

30 Certificat d'enseignement du français langue seconde aux adultes*

Conditions d'admission

Le certificat est destiné à celles et à ceux qui enseignent ou désirent enseigner le français langue seconde à diverses clientèles adultes et qui souhaitent améliorer leurs compétences méthodologiques et professionnelles.

Les candidates et candidats doivent posséder:

• le DEC ou l'équivalent et une certaine expérience de l'enseignement, ou l'autorisation de la direction d'un programme;

• le cours FRAN 400 ou l'équivalent.

Les candidates et candidats doivent faire preuve d'une très bonne connaissance du français oral et pouvoir suivre certains cours de TESL et ADED donnés en anglais.

6 crédits FRAN à choisir parmi les cours 264[3], 265[3], 266[3], 267[3]

3 crédits FRAN à choisir parmi les cours FRAN 467[3], 468[3], 469[3], 470[3], 471[3]

3 FRAN 381[3]

6 FRAN 382[3], 385[3]

6 TESL 341[3], 415[3]

3 crédits ADED à choisir en consultation avec le département d'Études françaises.

3 FRAN 488[3]

N.B.: Avant de s'inscrire, les étudiantes et étudiants devront faire approuver par écrit leur programme par un membre désigné du département. Celles et ceux qui s'inscrivent à la fois au Certificat d'enseignement du français langue seconde et au Certificate in the Teaching of English as a Second Language doivent remplacer le TESL 341[3] et le TESL 415[3] par d'autres cours approuvés par le département d'Études françaises.

**Admission suspendue pour 1996-97.*

Il est à noter que ce certificat d'enseignement aux adultes ne mène pas à un permis d'enseigner dans les écoles primaires et secondaires.

Les étudiantes et étudiants de l'Université Concordia peuvent transférer dans le programme de certificat tout crédit applicable obtenu dans un autre programme inachevé ou à titre d'étudiante ou d'étudiant indépendant, à condition que leurs résultats soient satisfaisants. Les étudiantes et étudiants provenant d'institutions autres que Concordia peuvent y transférer jusqu'à *12* crédits obtenus dans un programme inachevé ou à titre d'étudiante ou d'étudiant indépendant, à condition que leurs résultats soient satisfaisants. Le transfert éventuel de ces crédits sera déterminé au moment de l'inscription au programme.

Programme de traduction formule coopérative

Le programme de BA Spécialisation en traduction se présente sous deux formules: la formule standard et la formule coopérative.

L'option coopérative comprend les mêmes cours, en nombre et en nature, que l'option standard; cependant, aux sessions d'études viennent s'ajouter trois stages. Ces stages rémunérés se déroulent au sein de services linguistiques et sont consacrés à des tâches en traduction ou dans l'un des domaines connexes: rédaction, terminologie, documentation, etc.

Les conditions d'admission au BA spécialisé en traduction de formule coopérative sont plus rigoureuses que celles du programme spécialisé standard. À l'examen du dossier CÉGEP s'ajoutent d'autres filtrages du type lettre d'intention, examen écrit, entrevue.
Les conditions d'admission à l'option coopérative sont décrites à la §24 de l'annuaire.
Les étudiantes et étudiants du programme coopératif sont encadrés chacun et chacune personnellement et doivent satisfaire aux exigences de la Faculté des arts et sciences et de l'Institut d'enseignement coopératif pour se maintenir dans le programme coopératif.
La liaison entre l'étudiante ou l'étudiant, les employeurs et l'Institut d'enseignement coopératif est du ressort du comité du programme coopératif en traduction du Département d'études françaises, comité dont les conseillères et conseillers de l'étudiant ou de l'étudiante font partie.
Le calendrier du programme coopératif en traduction est différent de celui des autres programmes coopératifs et se présente comme suit:

Année	Automne	Hiver	Été
1	Cours I	Cours II	Cours III
2	Stage I	Cours IV	Stage II
3	Cours V	Stage III	Cours VI

63 BA Spécialisation en traduction

Option A: français–anglais

Cours I (/2) et II (/4)

6 crédits FRAN à choisir parmi les cours 366[3] et 367[3], 400[3] et 401[3], 402[6] ou 406[3] et 407[3]
6 crédits ENGL 212[3] et 213[3]
12 crédits en littératures de langue française
6 crédits TRAD 200[3] et 201[3]

Cours III (/1 printemps et été)

6 crédits FRAN 266[3] et 267[3]
6 crédits TRAD 310[3] et 311[3]
3 crédits TRAD 301[3]

Stage I (/2)

0 crédit

Cours IV (/4)

3 crédits TRAD 303[3]
3 crédits ENGL 477[3]
3 crédits TRAD à choisir parmi les cours 403[3], 405[3], 408[3]

Stage II (/1 printemps et été)

0 crédit

Cours V (/2)

3 crédits TRAD 409[3]
3 crédits TRAD à choisir parmi les cours 412[3] et 414[3]

Stage III (/4)

0 crédit

Cours VI (/1 printemps et été)

3 crédits ENGL au choix

Option F: anglais–français

Cours I (/2) et II (/4)

6 crédits FRAN à choisir parmi les cours 366[3] et 367[3], 400[3] et 401[3], 402[6], ou 406[3] et 407[3]
6 crédits ENGL 212[3] et 213[3]
12 crédits en littératures de langue française
6 crédits TRAD 200[3] et 202[3]

Cours III (/1 printemps et été)

6 crédits FRAN 266[3] et 267[3]
6 crédits TRAD 310[3] et 311[3]
3 crédits TRAD 304[3]

Stage I (/2)

0 crédit

Cours IV (/4)

3 crédits TRAD 302[3]
3 crédits FRAN 403[3]
3 crédits TRAD à choisir parmi les cours 404[3], 406[3], 408[3]

Stage II (/1 printemps et été)

0 crédit

Cours V (/2)

3 crédits TRAD 410[3]
3 crédits TRAD à choisir parmi les cours 412[3] et 414[3]

Stage III (/4)

0 crédit

Cours VI (/1 printemps et été)

3 crédits FRAN 415[3]

Cours

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.
Les cours du département ayant reçu de nouveaux numéros, les étudiantes et étudiants trouveront une liste d'équivalences à la section 200.1.

Français

FRAN 211 ***French Language: Elementary*** (6 credits)

This course is restricted to students having no previous training in French. It includes a comprehensive introduction to the basic structures and vocabulary of French and should enable students to acquire an ability to speak and understand simple conversational French. Both oral and written aspects of the language are presented, with special emphasis on oral skills. Laboratory sessions are included.
N.B.: Students who have received credit for FRAN 200 or FRAN 201 may not take this course for credit.

FRAN 212 ***Langue française: niveau de transition*** (6 crédits)
Préalable: FRAN 211 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants ayant suivi soit un an de français à l'université ou au niveau collégial, soit deux ans de français à l'école secondaire ou l'équivalent. Ce cours permet aux étudiantes et étudiants d'accéder à un niveau de compréhension et d'expression suffisant pour communiquer en français oralement et par écrit avec une certaine assurance. Par l'utilisation de techniques de conversation dirigée, de travail systématique en classe et au laboratoire, et d'exercices écrits, les étudiantes et étudiants acquerront un répertoire de structures et un vocabulaire plus étendu. Séances de laboratoire.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 202 ou FRAN 203 ne peuvent obtenir de crédits pour ce cours.

FRAN 213 ***Langue française: niveau intermédiaire I et II*** (6 crédits)
Préalable: FRAN 212 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants ayant suivi soit quatre ans de français à l'école secondaire, soit deux ans de français à l'université ou au niveau collégial ou l'équivalent. Par une étude et une pratique intensive des tournures du français courant, l'étudiante ou l'étudiant pourra acquérir l'aisance nécessaire à une communication orale et écrite spontanée. Le cours fournira également quelques aperçus sur le mode de vie des francophones.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 204 ou FRAN 205 ne peuvent obtenir de crédits pour ce cours.

FRAN 214 ***Langue française: niveau intermédiaire I*** (3 crédits)
Préalable: FRAN 212 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants ayant suivi soit 4 ans de français à l'école secondaire, soit 2 ans de français à l'université ou au niveau collégial ou l'équivalent. Par une étude et une pratique intensive des tournures du français courant, l'étudiante ou l'étudiant pourra acquérir l'aisance nécessaire à une communication orale et écrite spontanée. Le cours fournira également quelques aperçus sur le mode de vie des francophones.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 204 ou FRAN 213 ne peuvent obtenir de crédits pour ce cours.

FRAN 215 ***Langue française: niveau intermédiaire II*** (3 crédits)
Préalable: FRAN 214 ou l'équivalent. Suite du cours précédent.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 205 ou FRAN 213 ne peuvent obtenir de crédits pour ce cours.

FRAN 216 ***Cours de grammaire: niveau intermédiaire I*** (3 crédits)
Préalable: FRAN 212 ou l'équivalent. Ce cours s'adresse en particulier aux étudiantes et étudiants parlant français avec une certaine aisance et qui voudraient améliorer leur expression écrite par une étude des règles fondamentales de la grammaire et par de nombreux travaux pratiques.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 206 ou FRAN 207 ne peuvent obtenir de crédits pour ce cours.

FRAN 217 ***Cours de grammaire: niveau intermédiaire II*** (3 crédits)
Préalable: FRAN 216 ou l'équivalent. Suite du cours précédent.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 206 ou FRAN 207 ne peuvent obtenir de crédits pour ce cours.

FRAN 218 ***L'art de vivre au Québec I*** (6 crédits)
Préalable: FRAN 212 ou l'équivalent. Cours intensif qui a pour but principal de permettre à l'étudiante ou à l'étudiant de niveau intermédiaire de s'intégrer au milieu québécois, au moyen de discussions et d'activités dirigées par une professeure ou un professeur et animées par des monitrices-étudiantes et des moniteurs-étudiants francophones. Pratique systématique du français en classe. Participation en petits groupes à des activités culturelles dépassant le cadre scolaire.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 208 ou FRAN 300 ne peuvent obtenir de crédits pour ce cours.

FRAN 220 ***Littérature moderne*** (6 crédits)
Préalable: FRAN 213 ou l'équivalent. Au moyen d'un choix de nouvelles, romans, pièces de théâtre et poèmes de la francophonie, l'étudiante ou l'étudiant apprendra à «lire» et à apprécier les caractéristiques des différents genres.

FRAN 250 ***Littérature québécoise en traduction*** (3 crédits)
Étude de la littérature québécoise en traduction, surtout du point de vue de l'écriture (vocabulaire, style, images, etc.). Étude de textes sur le plan thématique, linguistique, stylistique et structural. Analyse des meilleures traductions disponibles. Travaux pratiques en traduction, compositions, recherches.
Textes: Bessette, *Le libraire;* Blais, *La Belle Bête;* Thériault, *Agaguk;* Hébert, *Kamouraska,* etc.
N.B.: Ce cours n'est pas crédité dans les programmes de mineure, de majeure, de BA spécialisé et d'honneurs en littérature québécoise.

FRAN 252 ***Culture et civilisation québécoises I*** (3 crédits)
Panorama de la littérature québécoise, de la Nouvelle-France à la fin du XIX[e] siècle, vue dans une perspective socio-historique. Par l'étude de textes significatifs, on retracera le

processus historique de différenciation et d'affirmation collective des Québécoises et Québécois.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 251 ne peuvent obtenir de crédits pour ce cours.

FRAN 253 ***Culture et civilisation québécoises II*** (3 crédits)
Panorama de la littérature québécoise du XX^e^ siècle vue dans une perspective socio-historique. Étude des grandes étapes de la production littéraire avec, comme toile de fond, un aperçu général de l'histoire politique, économique, sociale et culturelle du Québec. Étude des principaux courants de pensée.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 251 ne peuvent obtenir de crédits pour ce cours.

FRAN 254 ***Langue et condition des femmes au Québec I*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Ce cours vise deux objectifs: examiner les différents aspects de la condition des femmes au Québec (évolution, débat actuel, etc.) et permettre à l'étudiante et à l'étudiant de se donner la compétence langagière en vue d'une participation au débat sur la condition féminine. Le cours sera structuré autour de certains thèmes ou dossiers tels que le rôle des organismes politiques, gouvernementaux et syndicaux dans le débat et les questions d'actualité sociale concernant la femme: la publicité sexiste, la femme et la politique, la femme au foyer et la femme au travail, la femme et les arts, la santé des femmes, la pornographie, le viol, la violence, etc.
N.B.: Les étudiantes et étudiants francophones ne peuvent s'inscrire à ce cours.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 312 ne peuvent obtenir de crédits pour ce cours.

FRAN 255 ***Langue et condition des femmes au Québec II*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Ce cours vise des objectifs semblables à ceux du cours FRAN 254 et obéit aux mêmes principes. Le choix des thèmes sera toutefois différent.
N.B.: Les étudiantes et étudiants francophones ne peuvent s'inscrire à ce cours.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 313 ne peuvent obtenir de crédits pour ce cours.

FRAN 256 ***Littératures de la francophonie I: le Maghreb*** (3 crédits)
Cours d'introduction à la littérature d'expression française de l'Algérie, du Maroc et de la Tunisie. Le but de ce cours est de familiariser l'étudiante et l'étudiant avec le corpus littéraire qui apparaît en Afrique du Nord sous l'influence de la France, mais véhicule une culture de type essentiellement arabo-berbère. Textes choisis dans les œuvres de Mouloud Feraoun, Mohammed Dib, Mouloud Mammeri, Kateb Yacine, Rachid Boudjedra, Assia Djebar, Aïcha Lemsine, Driss Chraïbi, Tahar Ben Jelloun, Albert Memmi, Mustapha Tlili, etc.

FRAN 257 ***Littératures de la francophonie II: l'Afrique noire*** (3 crédits)
Cours d'introduction à la littérature négro-africaine. Étude des principales écrivaines noires et principaux écrivains noirs depuis le mouvement de la «négritude» jusqu'à nos jours. D'abord anticolonialiste, puis, après les indépendances, franchement contestataire, cette littérature sera étudiée en fonction de l'histoire récente de l'Afrique et surtout de la grande mutation des années soixante. Textes choisis parmi les œuvres de Léopold Sédar Senghor, Aimé Césaire, Yambo Ouologuem, Mongo Béti, Sembe Ousmane, Camara Laye, Tchicaya U Tam'Si, Ferdinand Oyono, Sony Labou Tansi, etc.

FRAN 264 ***Phonétique I*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent. Étude systématique des habitudes articulatoires du français en comparaison avec celles de l'anglais. Introduction aux principes de l'analyse phonologique: groupes consonantiques possibles ou impossibles dans les deux langues. Étude de l'aspect physiologique de la parole; propriétés des voyelles et des consonnes en français. Étude des phénomènes prosodiques; intonation, rythme, accent. Aperçu de la phonétique acoustique et expérimentale.

FRAN 265 ***Phonétique II*** (3 crédits)
Préalable: FRAN 264. Séminaire de recherche expérimentale. Initiation à l'utilisation des instruments de recherche. Étude détaillée de segments linguistiques du point de vue du timbre des voyelles, de l'articulation des consonnes et des faits prosodiques (accent, rythme, intonation). Étude expérimentale de problèmes relevant de la comparaison des systèmes phonétiques du français et de l'anglais.

FRAN 266 ***Introduction à la linguistique française I*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent. Introduction à l'analyse descriptive de la structure linguistique du français contemporain. Aperçus des aspects phonémiques, morphosyntaxiques et lexicaux de la langue considérée comme un système. Applications théoriques et pratiques.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 262 ne peuvent obtenir de crédits pour ce cours.

FRAN 267 ***Introduction à la linguistique française II*** (3 crédits)
Préalable: FRAN 266 ou l'équivalent. Suite du cours FRAN 266.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 262 ne peuvent obtenir de crédits pour ce cours.

FRAN 269 ***Histoire de la langue française*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent. Le but de ce cours est de familiariser l'étudiante et l'étudiant avec les grands moments de la langue (Concile de Tours, Édit de Villers Cotterêts, etc.) afin de leur donner une vue panoramique et diachronique de l'évolution du français.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 384 ne peuvent obtenir de crédits pour ce cours.

FRAN 270 ***Introduction à l'histoire de la culture et de la civilisation françaises I*** (3 crédits)
Abondamment illustré de projections, ce cours a pour but essentiel d'amener les étudiantes et étudiants à replacer la littérature dans son contexte historique, social, politique et artistique.

FRAN 271 ***Introduction à l'histoire de la culture et de la civilisation françaises II*** (3 crédits)
Suite chronologique du cours FRAN 270.

FRAN 298 ***Étude d'un sujet particulier*** (3 crédits)

FRAN 299 ***Étude d'un sujet particulier*** (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule.*

FRAN 301 ***Langue française: niveau d'approfondissement I et II*** (6 crédits)
Préalable: FRAN 213 ou 215 ou l'équivalent. Ce cours d'approfondissement est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français et qui ont besoin d'améliorer leur expression écrite et orale. Pratique de la lecture, de la rédaction et de la grammaire.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 302 ou 303 ne peuvent obtenir de crédits pour ce cours.

FRAN 302 ***Langue française: niveau d'approfondissement I*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Le cours d'approfondissement est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français et qui ont besoin d'améliorer leur expression écrite et orale. Pratique de la lecture, de la rédaction et de la grammaire.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 301 ne peuvent obtenir de crédits pour ce cours.

FRAN 303 ***Langue française: niveau d'approfondissement II*** (3 crédits)
Préalable: FRAN 302 ou l'équivalent. Suite du cours FRAN 302.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 301 ne peuvent obtenir de crédits pour ce cours.

FRAN 305 ***Communication orale*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Étude des caractéristiques propres à la langue orale et au déroulement du discours. Initiation à l'identification des niveaux de langue et aux aspects affectifs et situationnels de la langue parlée. Présentations théoriques et applications pratiques sous forme d'exercices d'expression et de compréhension reliés à l'analyse de documents authentiques.

FRAN 306 ***Communication écrite*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Pratique des diverses formes de l'expression écrite par la rédaction de nombreuses compositions choisies pour améliorer progressivement l'aisance de l'étudiante et l'étudiant, dans la narration particulièrement.

FRAN 308 ***L'art de vivre au Québec II*** (6 crédits)
Préalable: FRAN 213 ou l'équivalent. Suite du cours FRAN 218. Ce cours intensif a pour but d'amener l'étudiante et l'étudiant à approfondir la matière du cours précédent. Les objectifs visés et les moyens pédagogiques mis en œuvre sont donc semblables à ceux du cours FRAN 218. Le cours s'adresse aux étudiantes et étudiants de niveau d'approfondissement.

FRAN 310 ***Le français de la récréologie, de l'éducation physique et des sports I*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Cours destiné aux étudiantes et étudiants qui travaillent déjà ou qui se préparent à œuvrer dans le domaine de la récréologie et des sports. Les thèmes étudiés comprennent le conditionnement physique, le rôle du sport dans la société, le reportage sportif, l'organisation des loisirs dans la ville et dans la nature, etc. L'acquisition du vocabulaire, des structures et des niveaux de langue choisis en fonction de ces thèmes se fera en situations de travail simulées par la pratique et la discussion à partir de documents authentiques et par une recherche individuelle.

FRAN 311 ***Le français de la récréologie, de l'éducation physique et des sports II*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Suite du cours FRAN 310.

FRAN 312 ***Le français des sciences sociales I*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants qui désirent participer activement en français à la vie politique et aux activités communautaires du

Québec d'aujourd'hui. Les thèmes étudiés incluent les organismes politiques, gouvernementaux et syndicaux, et leurs rôles respectifs, ainsi que les questions d'actualité sociale concernant la femme, la famille, etc. Par des lectures et recherches individuelles, discussions, débats et simulation de situations authentiques, les étudiantes et étudiants pourront acquérir la compétence langagière nécessaire pour jouer un rôle actif dans la société qui les entoure.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 254 ne peuvent obtenir de crédits pour ce cours.

FRAN 313 ***Le français des sciences sociales II*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Suite du cours FRAN 312.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 255 ne peuvent obtenir de crédits pour ce cours.

FRAN 316 ***Le français de la bibliothéconomie I*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Le cours est destiné aux étudiantes et étudiants qui travaillent ou se préparent à travailler dans les divers services des bibliothèques et des centres de ressources tels que le service du prêt, des acquisitions, du catalogue, etc. On étudie le vocabulaire et les structures nécessaires pour communiquer en français avec les usagers et pour échanger des renseignements en code oral ou écrit avec d'autres bibliothécaires, maisons d'édition, etc. On simulera des situations de travail et chaque étudiante ou étudiant devra faire une recherche personnelle se rapportant à ses intérêts individuels.

FRAN 317 ***Le français de la bibliothéconomie II*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Suite du cours FRAN 316.

FRAN 318 ***Le français commercial I*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Le cours vise à faciliter la communication efficace orale et écrite dans le domaine des affaires. Il comprend une révision des structures, mais l'effort principal porte sur l'acquisition des termes et tournures de la langue du commerce, de la banque et des affaires. On s'efforce d'enseigner ces termes en simulation de situations réelles, par ex.: au téléphone, entrevues, réunions, rédaction administrative et commerciale. On encourage les étudiantes et étudiants à entreprendre un projet individuel pour approfondir le vocabulaire de leur domaine particulier.

FRAN 319 ***Le français commercial II*** (3 crédits)
Préalable: FRAN 213 ou l'équivalent. Suite du cours FRAN 318.

FRAN 321 ***Panorama de la littérature française I*** (3 crédits)
Ce cours, qui traite de la littérature française des origines à la fin du règne de Louis XIV, s'adresse aux étudiantes et étudiants qui ont choisi la littérature comme domaine de spécialisation principal ou secondaire.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 320 ne peuvent obtenir de crédits pour ce cours.

FRAN 322 ***Panorama de la littérature française II*** (3 crédits)
Ce cours complète le cours FRAN 321 par une étude de la littérature française de la Régence à nos jours.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 320 ne peuvent obtenir de crédits pour ce cours.

FRAN 350 ***Les origines de la littérature québécoise*** (3 crédits)
D'une littérature coloniale à une littérature autochtone. De la tradition orale à l'écriture. Étude de textes écrits avant l'École patriotique de Québec.

FRAN 352 ***Le roman québécois du XX^e^ siècle I*** (3 crédits)
Le roman québécois traditionnel: le roman de la fidélité, le roman d'observation, le roman de la solitude, le roman de la critique et de la satire. Étude de textes significatifs des romancières et des romanciers les plus marquants, tels que Hémon, Desrosiers, Grignon, Harvey, Savard, Ringuet, Guèvremont, Roy, Thériault, Langevin, Charbonneau.

FRAN 353 ***Le roman québécois du XX^e^ siècle II*** (3 crédits)
Le roman de revendication sociale et le nouveau roman. Étude de textes significatifs des romancières et des romanciers les plus marquants, tels que Girouard, Renaud, Major, Blais, Ferron, Godbout, Jasmin, Bessette, Aquin, Ducharme, Beaulieu, Hébert, Larocque, Bersianik.

FRAN 354 ***La poésie québécoise du XX^e^ siècle I*** (3 crédits)
De l'École littéraire de Montréal à l'automatisme. Étude de textes significatifs des poètes les plus marquants: Nelligan, Loranger, Beauchemin, Desrochers, Coderre, Hébert, Saint-Denys Garneau, Grandbois, Lasnier.

FRAN 355 ***La poésie québécoise du XX^e^ siècle II*** (3 crédits)
De l'automatisme à aujourd'hui: mouvements et formes poétiques. Étude de textes significatifs des poètes les plus marquants: Gauvreau, Hénault, Giguère, P.-M. Lapointe, Miron, Chamberland, R. Duguay, Garneau, Vanier, Francœur.

FRAN 356 ***Le théâtre québécois I*** (3 crédits)
L'évolution du théâtre jusqu'à Marcel Dubé. Aperçu historique, thématique et formel. Le

théâtre historique, patriotique, comique, le mélodrame, le drame bourgeois. Formation des troupes québécoises. Étude de textes, avec une attention particulière portée au théâtre de Gélinas, Dubé, Hébert, Savard.

FRAN 357 ***Le théâtre québécois II*** (3 crédits)
Le nouveau théâtre québécois: théâtre social et politique, théâtre expérimental, théâtre d'improvisation, recherches de nouvelles formes théâtrales. Étude de textes: Tremblay, Germain, Sauvageau, Loranger, Barbeau, Garneau, le Grand-cirque ordinaire, etc. En plus d'avoir recours aux textes publiés, ce cours s'appuiera d'une façon particulière sur la production courante du théâtre à Montréal.

FRAN 358 ***L'essai et le développement de la pensée québécoise*** (3 crédits)
Étude des grands thèmes et de l'évolution des formes de la pensée québécoise à travers l'essai. Textes de Buies, Nevers, LeMoyne, Vadeboncœur, Dumont, Vallières, Rioux, Bouthillette.

FRAN 360 ***Littératures de la francophonie au féminin I*** (3 crédits)
Cours d'introduction à l'écriture des femmes de pays entièrement ou partiellement de langue française de l'Afrique noire et des Amériques, à l'exception du Canada. L'étude de leurs textes doit permettre de comprendre l'apport spécifique de ces femmes à la littérature de leur pays, les rapports qu'elles entretiennent avec le français (langue maternelle, langue d'usage, langue imposée, etc.), le regard particulier qu'elles posent sur la société.

FRAN 361 ***Littératures de la francophonie au féminin II*** (3 crédits)
Cours d'introduction à l'écriture des femmes de pays entièrement ou partiellement de langue française du monde arabe, de l'Asie et de l'Océanie. L'étude de leurs textes doit permettre de comprendre l'apport spécifique de ces femmes à la littérature de leur pays, les rapports qu'elles entretiennent avec le français (langue maternelle, langue d'usage, langue imposée, etc.), le regard particulier qu'elles posent sur la société.

FRAN 364 ***Le quotidien de la francophonie I*** (3 crédits)
Cours d'introduction à la culture de pays entièrement ou partiellement d'expression française de l'Afrique noire et des Amériques, à l'exception du Canada. Ce cours a pour but, au moyen de documents imprimés et audio-visuels, de faire connaître la vie quotidienne de ces pays plutôt que l'histoire des faits exceptionnels.

FRAN 365 ***Le quotidien de la francophonie II*** (3 crédits)
Cours d'introduction à la culture de pays entièrement ou partiellement d'expression française du monde arabe, de l'Asie et de l'Océanie. Ce cours a pour but, au moyen de documents imprimés et audio-visuels, de faire connaître la vie quotidienne de ces pays plutôt que l'histoire des faits exceptionnels.

FRAN 370 ***Introduction au genre romanesque*** (3 crédits)
Le genre romanesque sera étudié dans une perspective spécifique qui pourra varier selon l'année et selon la professeure ou le professeur: théorie du roman, catégories de roman, sociologie du roman, étude d'un type particulier de roman.

FRAN 371 ***Introduction à la poésie*** (3 crédits)
Le vers français: les formes fixes, le vers libre, le poème en prose; les notions de poétique et d'art poétique. Esthétique de la poésie, esthétique de la prose et leurs interférences; étude historique. La poésie, discours social ou asocial? Les différents aspects de la question, ou certains d'entre eux seront étudiés, avec des exemples, dans une perspective qui pourra varier selon l'année et selon la professeure ou le professeur.

FRAN 372 ***Introduction au théâtre en tant que genre*** (3 crédits)
Ce cours permettra aux étudiantes et étudiants, à partir d'un petit nombre de textes, de voir les caractéristiques du théâtre en tant que genre, d'analyser sa fonction littéraire et sociale, d'étudier sa place particulière dans les différents mouvements littéraires en France.

FRAN 373 ***Le cinéma français I*** (6 crédits)
Ce cours, abondamment illustré de films ou d'extraits de films, retrace, en tout ou en partie, l'histoire du septième art dans ses manifestations les plus originales et les plus caractéristiques.

FRAN 374 ***Le cinéma français II*** (6 crédits)
Les étudiantes et étudiants s'inscrivant pour la deuxième fois au cours de FRAN 373 obtiennent les crédits FRAN 374.

FRAN 381 ***Introduction à la didactique du français langue seconde*** (3 crédits)
Préalable: FRAN 400 ou l'équivalent. Aperçu historique de l'évolution des méthodes utilisées dans l'enseignement du français langue seconde avec étude des principes linguistiques, psychologiques et sociologiques sous-jacents. Étude critique et analyse des nouvelles approches méthodologiques, en particulier celles qui ont trait à l'enseignement aux adultes évoluant en milieu québécois.

FRAN 382 ***Analyse de matériel didactique*** (3 crédits)
Préalable: FRAN 400 ou l'équivalent. Étude critique du matériel utilisé pour l'enseignement

du français langue seconde aux adultes dans des cadres et à des niveaux de compétence variés. Travaux pratiques d'analyse et d'exploitation de ce matériel.

FRAN 385 ***Création de matériel didactique*** (3 crédits)
Préalable: FRAN 382. Acquisition des connaissances et des techniques nécessaires à l'élaboration de matériel didactique pour l'enseignement du français langue seconde. Travaux pratiques de planification de cours, de sélection, d'adaptation et de création de documents.

FRAN 398 ***Étude d'un sujet particulier*** (3 crédits)

FRAN 399 ***Étude d'un sujet particulier*** (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule*.

FRAN 400 ***Langue française: niveau de perfectionnement I*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent; FRAN 306 recommandé si le résultat en FRAN 303 est de 2.00 ou moins. Cours avancé de langue, axé sur l'étude de la grammaire et de la stylistique française, permettant à une étudiante ou un étudiant qui possède déjà une connaissance approfondie de la langue de corriger ses lacunes, de nuancer son expression et d'explorer les possibilités créatrices du langage.

FRAN 401 ***Langue française: niveau de perfectionnement II*** (3 crédits)
Préalable: FRAN 400 ou l'équivalent. Cours avancé de langue et de composition, axé sur l'étude de l'utilisation stylistique des temps et d'un certain nombre de techniques, permettant aux étudiantes et aux étudiants d'écrire un texte soigné.

FRAN 402 ***Initiation à la composition avancée*** (6 crédits)
Préalable: FRAN 303 ou l'équivalent. Révision de la grammaire. Techniques de mise en œuvre des moyens d'expression écrite et orale. Étude des différentes méthodes d'analyse et de composition, y compris la dissertation. Méthodologie de la présentation des travaux.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 324 ne peuvent obtenir de crédits pour ce cours.

FRAN 403 ***Rédaction avancée*** (3 crédits)
Préalable: FRAN 400 et 401 ou 402 ou 406 et 407 ou 366 et 367. Ce cours vise à faire acquérir à l'étudiante ou l'étudiant qui a déjà une bonne maîtrise de la grammaire l'habileté à rédiger des textes de formes diverses. À partir d'une pratique intense de l'écriture, l'étudiante ou l'étudiant apprendra à rédiger des textes qui répondent à un but spécifique de la communication.

FRAN 404 ***Le code oratoire I*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent. Correction phonétique, en particulier au niveau de la langue «soignée», techniques de présentation de la parole en public: pose de voix, gestes, affectivité, etc. Étude du vocabulaire et des procédures nécessaires pour convoquer une réunion, la diriger, y participer. Rédaction et présentation de divers types de rapports, allocutions et conférences. Séances de travaux pratiques en laboratoire, 1 h 30 min par semaine.

FRAN 405 ***Le code oratoire II*** (3 crédits)
Préalable: FRAN 404 ou l'équivalent. Suite du cours FRAN 404.

FRAN 406 ***Le code grammatical I*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent. Étude des règles fondamentales de la grammaire française à l'aide d'exercices d'analyse et de construction de phrases, ayant pour but la correction de l'orthographe et de la syntaxe.

FRAN 407 ***Le code grammatical II*** (3 crédits)
Préalable: FRAN 406 ou l'équivalent. Ce cours a pour but de fixer définitivement les connaissances grammaticales pratiques des étudiantes et étudiants, en particulier de celles ou ceux qui envisagent de poursuivre leurs études de français à un niveau supérieur. La norme étudiée dans ce cours tiendra compte à la fois des principes de la grammaire traditionnelle et des progrès récents dans l'étude de la langue. L'étude des unités d'expression mènera, par des exercices pratiques d'analyse fonctionnelle, à l'examen approfondi de certains points de stylistique.

FRAN 409 ***Cours libre de traduction I*** (3 crédits)
Préalable: Six crédits parmi FRAN 304; FRAN 305; FRAN 306; FRAN 307; FRAN 400; FRAN 401; ou autorisation du département. Étude systématique des anglicismes; notions de méthodologie de la traduction; étude de quelques aspects de la stylistique comparée du français et de l'anglais; travaux pratiques de traduction de l'anglais au français.
N.B.: Ce cours est destiné particulièrement, mais non exclusivement, aux étudiantes et étudiants qui ne se spécialisent pas en traduction. Les étudiantes et étudiants qui ont suivi FRAN 408 ne peuvent s'inscrire à ce cours.

FRAN 410 ***Cours libre de traduction II*** (3 crédits)
Préalable: FRAN 409 ou autorisation du département. Suite du cours précédent.

FRAN 412 ***Le français des situations administratives et juridiques I*** (3 crédits)
Préalable: FRAN 303, ou l'équivalent. Le cours s'adresse aux étudiantes et étudiants qui, dans leur profession ou celle à laquelle elles ou ils se préparent, doivent utiliser le vocabulaire de l'appareil judiciaire et la terminologie des différentes branches du droit. On étudiera les situations telles que le conflit locataire-propriétaire, les problèmes d'assurance, le contrat de mariage, etc. Par une étude théorique et pratique de divers litiges, par une recherche individuelle et en jouant les rôles de divers personnages en situation, les étudiantes et étudiants approfondiront leurs connaissances de la langue du droit et apprendront à l'utiliser.

FRAN 413 ***Le français des situations administratives et juridiques II*** (3 crédits)
Préalable: FRAN 412. Suite du cours FRAN 412.

FRAN 414 ***Le français de la technologie*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants qui s'intéressent à la langue technique. Les étudiantes et étudiants se familiariseront avec la terminologie, la syntaxe et le style propres à certains domaines de la technologie. Les travaux comprendront des exercices pratiques de vocabulaire, de style et de rédaction dont le but sera de faciliter l'expression exacte de notions techniques.

FRAN 415 ***Rédaction technique*** (3 crédits)
Préalable: FRAN 414 ou l'équivalent. Dans ce cours qui s'adresse aux étudiantes et étudiants déjà initiés à certains domaines de la technologie, on étudiera la rédaction de documents techniques tels que les résumés de textes, les spécifications, devis, appels d'offres, modes d'emploi, etc. L'effort principal portera sur la rédaction de rapports techniques.

FRAN 418 ***Le français de l'économie et du marketing*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent. L'étudiante et l'étudiant se familiariseront avec des concepts du système économique au moyen d'une communication axée sur des réalités économiques québécoises, canadiennes et mondiales. Étude approfondie du vocabulaire spécialisé, travaux de rédaction et présentation d'exposés à partir d'une analyse d'articles et de films didactiques sélectionnés dans le domaine.

FRAN 419 ***Le français de la finance et de la gestion*** (3 crédits)
Préalable: FRAN 303 ou l'équivalent. Ce cours vise à perfectionner l'usage du français spécialisé écrit et oral utilisé dans les relations d'affaires par un examen des difficultés de la langue française et l'étude de concepts à partir d'une documentation axée sur la science de la gestion et de la finance. Étude approfondie du vocabulaire spécialisé et rédaction de travaux dans le contexte des divers domaines de la gestion administrative, financière et celle des ressources humaines.

FRAN 420 ***Littérature du Moyen Âge*** (6 crédits)
Initiation à la langue et à la littérature du Moyen Âge, au moyen d'un choix d'œuvres épiques, romanesques, lyriques, historiques, pouvant varier d'une année à l'autre. En plus d'acquérir une vue générale de la littérature et une connaissance approfondie de quelques œuvres en traduction, l'étudiante et l'étudiant se familiariseront suffisamment avec la langue pour ne plus être embarrassés à la lecture d'un texte en ancien français.

FRAN 421 ***Panorama de la littérature française du Moyen Âge I*** (3 crédits)
Au moyen d'une sélection d'œuvres des IX^{e}, X^{e}, XI^{e} et XII^{e} siècles, ce cours se propose de faire connaître et apprécier à l'étudiante et l'étudiant les premières manifestations de la littérature française. (Serment de Strasbourg, chanson de geste, roman courtois, etc.)

FRAN 425 ***Introduction à la vie littéraire du XVI^{e} siècle*** (3 crédits)
Les milieux. Les outils culturels. Les idéologies: problèmes, programmes, thèmes. Les événements littéraires: genèse, langue, portée.

FRAN 426 ***La poésie du XVI^{e} siècle: des doctrines aux œuvres*** (3 crédits)
Marot, Scève, Ronsard, D'Aubigné: leurs recherches, leur évolution, leur rayonnement.

FRAN 427 ***La littérature en prose du XVI^{e} siècle: du conte à l'essai*** (3 crédits)
Orientation et fixation des types «humanistes» dans la littérature narrative et spéculative du XVI^{e} siècle: Marguerite de Navarre, Rabelais, Montaigne.

FRAN 428 ***La littérature de l'âge baroque*** (3 crédits)
Les dissonances de l'âge classique — du romanesque au burlesque et à la fuite poétique. Théophile de Viau, Saint-Amant, Rotrou, Cyrano de Bergerac.

FRAN 429 ***Le siècle classique*** (3 crédits)
La société classique: la Ville et la Cour, les salons, les honnêtes gens, les chefs-d'œuvre classiques.

FRAN 430 ***Le théâtre et le roman classiques*** (3 crédits)
Les dramaturges face aux règles classiques. La tragédie et la comédie classiques. Du roman précieux au roman classique.

FRAN 431 ***Les moralistes*** (3 crédits)
La pensée religieuse de Pascal à Bossuet. La morale laïque (La Fontaine). Les mondains (La Bruyère et La Rochefoucauld).

FRAN 432 ***L'aube des lumières*** (3 crédits)
La querelle des Anciens et des Modernes et la remise en question du classicisme. Intérêt pour les questions politiques, religieuses et sociales. Vers le XVIII[e] siècle.

FRAN 434 ***Littérature du XVIII[e] siècle: les œuvres militantes*** (3 crédits)
Le siècle des Lumières: l'esprit philosophique (libre examen, besoin de vérité, goût des sciences); aspects de la critique religieuse, politique, sociale et économique. Les *Lettres persanes*, les *Lettres philosophiques*, l'*Encyclopédie*, le *Contrat social*, etc.

FRAN 435 ***Littérature du XVIII[e] siècle: le conte et le roman*** (3 crédits)
Le conte philosophique: Voltaire; le roman picaresque: Lesage; le roman sentimental et préromantique: l'abbé Prévost et Rousseau; un premier romancier moderne: Diderot.

FRAN 436 ***Littérature du XVIII[e] siècle: le théâtre et la poésie*** (3 crédits)
La tragédie: Voltaire; la comédie larmoyante: Nivelle de la Chaussée; le drame bourgeois: Diderot et Sedain; la comédie de mœurs: Lesage; la comédie psychologique: Marivaux; la comédie militante et joyeuse: Beaumarchais. La poésie: tradition et avenir.

FRAN 437 ***Littérature du XVIII[e] siècle: les œuvres libertines*** (3 crédits)
Le roman libertin: Crébillon fils, Restif de la Bretonne, Laclos; l'apogée du genre: le marquis de Sade.

FRAN 438 ***Le romantisme*** (3 crédits)
Le romantisme, phénomène européen; ses causes, ses caractères particuliers en France. Le Mal du siècle, ses vagues successives et leurs causes. Les grands thèmes romantiques. Étude d'œuvres caractéristiques de Chateaubriand, Lamartine, Vigny, Hugo, Musset.

FRAN 439 ***Littérature de la période romantique*** (3 crédits)
Évolution des écrivaines et des écrivains de la période romantique. La révolution de 1830 et «l'école du désenchantement». Étude, dans un choix de romans, de l'invention de techniques réalistes propres à exposer les problèmes éthiques, sociaux et politiques d'une société qui s'urbanise et s'industrialise.

FRAN 440 ***Littérature sous le second-empire: une littérature ironique et critique*** (3 crédits)
On cherchera à étudier et à expliquer la rupture qui intervient dans la deuxième moitié du XIX[e] siècle dans la forme et dans la finalité des œuvres littéraires, particulièrement, dans ce cours, chez Baudelaire et chez Flaubert.

FRAN 441 ***La fin du siècle: entre la tour d'ivoire et le monde réel*** (3 crédits)
On cherchera à étudier et à expliquer quelles tendances littéraires nouvelles s'expriment sous des termes comme réalisme, naturalisme ou symbolisme, dans des œuvres de Verlaine, Mallarmé, Rimbaud, Huysmans, Zola, Gide.

FRAN 444 ***Le roman et la poésie de 1900 à 1920*** (3 crédits)
Distinction entre la littérature en vogue et celle qui prépare le renouveau littéraire de l'entre-deux-guerres par l'étude des œuvres de certains représentants de ces deux courants choisis parmi les suivants: France, Barrès, Bourget, Gide, Valéry, Proust, Apollinaire, Tzara.

FRAN 445 ***Le roman et la poésie de l'entre-deux-guerres*** (3 crédits)
La guerre 14-18 et ses conséquences. Littérature des «années folles»; l'internationalisme pacifiste et l'inquiétude spirituelle. Analyse de l'explosion surréaliste. Les auteures et les auteurs seront choisis parmi les suivants: Radiguet, Rolland, Jules Romains, Martin du Gard, Mauriac, Bernanos, Green, Giono, Colette, Breton, Éluard.

FRAN 446 ***Le roman et la poésie du XX[e] siècle I*** (3 crédits)
Littérature désabusée, littérature engagée. Problèmes de l'individu et de la société moderne. Le roman de la grandeur et de la condition humaines. Les écrivains de la Résistance. Les auteurs étudiés seront choisis parmi les suivants: Saint-Exupéry, Malraux, Montherlant, Céline, Giraudoux, Emmanuel, Jouve, Char.

FRAN 447 ***Le roman et la poésie du XX[e] siècle II*** (3 crédits)
Le domaine contemporain. Répercussion de la seconde guerre mondiale sur la vie sociale et culturelle. Littérature de l'absurde et du néant; pessimisme viril; tendances littéraires récentes: le nouveau roman, le surréalisme en question, la nouvelle poésie. Les auteures et auteurs étudiés seront choisis parmi les suivants: Camus, Sartre, Beauvoir, Robbe-Grillet, Queneau, Butor, Prévert, Michaux, Tournier.

FRAN 448 ***Littérature française: l'ère post-moderne*** (3 crédits)
Aperçu de la littérature française des trente dernières années du XX[e] siècle, marquée par plusieurs phénomènes, dont l'éclatement des genres et des structures, le désarroi post-moderne, l'écriture au féminin, la revendication de la différence, la réhabilitation du «polar», la remise en question de la théorie. On propose la

lecture d'œuvres représentatives de ces diverses tendances.

FRAN 450 ***Symboles et archétypes de l'imaginaire québécois en littérature*** (3 crédits)
Identification, description, évolution des grands symboles et archétypes de l'imaginaire québécois en littérature. Examen des modes de production et de transmission. Textes puisés aussi bien dans la littérature «officielle» que dans la littérature «populaire».

FRAN 451 ***La littérature québécoise au féminin*** (3 crédits)
Étude des principales écrivaines québécoises. Saisie du réel et modes d'expression. Évolution de la conscience féminine. Les féminismes.

FRAN 453 ***Le fantastique et la tradition populaire dans la littérature québécoise*** (3 crédits)
La présence du fantastique dans la littérature québécoise et l'influence de la tradition populaire au niveau des thèmes et des structures. Textes choisis dans l'ensemble de la production littéraire.

FRAN 454 ***Littérature et paralittérature québécoises*** (3 crédits)
Ressemblances et différences entre l'une et l'autre littérature. Conditions de production et de diffusion. Univers représenté. Structures des œuvres et idéologie. Textes choisis dans l'ensemble de la littérature québécoise. Guide: *Manuel de la petite littérature du Québec* de V.-L. Beaulieu.

FRAN 455 ***Littérature québécoise - Canadian Literature I*** (3 crédits)
Étude comparée des littératures québécoise et canadienne-anglaise. Comparaison des deux littératures sur le plan thématique, stylistique, structural, idéologique, etc. Examen des similitudes, des analogies et des traits distinctifs. L'accent dans ce cours est mis sur les œuvres traditionnelles. Textes tels que: Grove, *Settlers of the Marsh*; Ringuet, *Trente Arpents;* MacLennan, *The Watch that Ends the Night*; Langevin, *Poussière sur la ville*, etc.

FRAN 456 ***Littérature québécoise - Canadian Literature II*** (3 crédits)
Étude comparée des littératures québécoise et canadienne anglaise. Continuation du cours précédent. On mettra l'accent sur l'évolution des deux littératures depuis 1960. (Le nouveau roman québécois, etc.) Analyses thématique, idéologique et stylistique. Ressemblances et dissemblances. Textes choisis dans les œuvres d'Anne Hébert, de Robertson Davies, de Marie-Claire Blais, de Margaret Atwood, etc.

FRAN 460 ***Les Voix de Montréal*** (3 crédits)
À travers des textes d'écrivaines et d'écrivains montréalais, on cherchera à rendre compte de la dimension plurielle de l'écriture et de la culture québécoises. On privilégiera les parcours transculturels des auteures et auteurs venus d'un ailleurs géographique et culturel, mais qui inscrivent leurs différences dans le texte québécois par la publication ou la traduction de leurs œuvres en français.

FRAN 462 ***Littératures et cultures européennes d'expression française hors France*** (3 crédits)
Cours d'introduction, à partir de textes littéraires et autres documents imprimés ou audio-visuels, à la culture de pays européens entièrement ou partiellement de langue française, à l'exception de la France.

FRAN 463 ***Littératures et cultures canadiennes d'expression française hors Québec*** (3 crédits)
Cours d'introduction, à partir de textes littéraires et autres documents imprimés ou audio-visuels, à la culture des francophones canadiens à l'extérieur du Québec.

FRAN 466 ***La langue française au Québec: son évolution*** (3 crédits)
Préalable: FRAN 251 et autorisation du département. Aperçu de l'évolution du français sur le territoire québécois; influences internes et externes. Étude des rapports entre l'évolution politique et économique du Québec et celle de la langue par la consultation de documents provenant d'époques successives.

FRAN 467 ***La langue française au Québec: son état actuel*** (3 crédits)
Préalable: FRAN 262 ou l'équivalent. Analyse des aspects phonétiques, lexicaux et morphosyntaxiques du français québécois actuel et des divergences de ce dernier par rapport à la norme européenne: archaïsmes, anglicismes, créations nouvelles. La question des niveaux de langue (aspects sociaux et linguistiques) et celle de la norme seront également abordées.

FRAN 468 ***Étude de la norme*** (3 crédits)
Préalable: FRAN 262 ou l'équivalent. Étude des facteurs politiques, sociologiques et psychologiques contribuant à la notion de norme. Analyse et description des écarts par rapport à la norme. Travaux pratiques d'enquête.

FRAN 469 ***Sémantique*** (3 crédits)
Préalable: FRAN 262. Étude formelle de la signification et de la segmentation du sens en français fondée sur une approche sémiotique de la langue. L'étudiante et l'étudiant feront l'apprentissage de méthodes d'analyse leur permettant d'inventorier les effets de sens et de les ordonner en fonction de critères objectifs.

FRAN 470 ***Stylistique avancée*** (3 crédits)
Préalable: FRAN 400 ou autorisation du département. Étude de l'articulation entre des procédés d'expression lexicologiques, syntaxiques et rhétoriques, et leurs effets sémantiques. Ce cours permettra aux étudiantes et aux étudiants d'améliorer leur capacité à rédiger différents types d'écrits structurés et nuancés.
N.B. Les étudiantes et étudiants qui ont suivi FRAN 366 ne peuvent obtenir de crédits pour ce cours.

FRAN 471 ***Questions actuelles en linguistique française*** (3 crédits)
Préalable: FRAN 400 ou autorisation du département. Étude d'une question particulière du domaine de la linguistique, intéressant les étudiantes et les étudiants en langue, littérature, traduction et didactique. Pourront être abordées les méthodologies suivantes: analyse du discours, théorie de l'énonciation, linguistique du texte, pragmatique, linguistique statistique, psycholinguistique, lexicologie.
N.B. Les étudiantes et étudiants qui ont suivi FRAN 367 ne peuvent obtenir de crédits pour ce cours.

FRAN 476 ***La littérature au féminin I*** (3 crédits)
À partir de manifestes et d'œuvres de création, on retracera différentes manifestations de la prise de conscience «féministe» chez les écrivaines françaises, ainsi que les solutions envisagées aux problèmes posés. Ce cours permettra de considérer les tendances actuelles dans une perspective historique.

FRAN 477 ***La littérature au féminin II*** (3 crédits)
Ce cours portera sur l'éclatement qui caractérise l'écriture au féminin à l'heure actuelle. On étudiera différents concepts tels que la «prise de parole», la valorisation de *l'anima*, le renversement des mythes anciens, ainsi que la révolution formelle et stylistique qui accompagne cet éclatement.

FRAN 478 ***Histoire de la critique littéraire*** (3 crédits)
Étude de l'évolution de la critique littéraire des origines au début du XX^{e} siècle, au moyen d'un choix d'œuvres théoriques et critiques.

FRAN 479 ***Approches critiques du texte littéraire*** (3 crédits)
Étude des questions épistémologiques que pose l'analyse d'un texte littéraire en relation avec d'autres disciplines telles que la philosophie, la sociologie, la psychologie, etc. Le programme du cours comprend l'examen des principales théories et l'apprentissage des méthodes critiques qui en découlent.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 481 ou FRAN 482 ou FRAN 483 ne peuvent obtenir de crédits pour ce cours.

FRAN 480 ***La sémiotique textuelle*** (3 crédits)
Étude des conditions générales de la production du sens et de la spécificité du texte littéraire. Examen des principales théories formalistes en France et au Québec et apprentissage des méthodes critiques qui en découlent. Travaux pratiques qui permettront à l'étudiante et à l'étudiant d'en contrôler l'efficacité et la valeur au contact des œuvres.

FRAN 488 ***Stage pratique d'enseignement du français langue seconde aux adultes*** (3 crédits)
Préalable: FRAN 381 et 9 autres crédits dans le programme d'enseignement du français langue seconde aux adultes, ou autorisation de la directrice ou du directeur du programme. Les étudiantes et étudiants auront l'occasion d'observer des professeures et professeurs expérimentés en assistant à leurs cours et devront elles-mêmes et eux-mêmes appliquer les connaissances acquises dans les autres cours du programme à un enseignement pratique dans une classe.

FRAN 489 ***Méthodologie des travaux de recherche*** (6 crédits)
Destiné aux étudiantes et étudiants de dernière année et préparant aux études du deuxième cycle, ce cours permettra, par des exercices de rédaction commentés et critiqués, d'atteindre la précision, l'élégance et l'originalité dans l'expression écrite. Analyse stylistique proprement dite (définitions et procédés de style). Théorie et pratique de l'analyse de texte; théorie de la versification; théorie et pratique des recherches bibliographiques.

FRAN 490 ***Tutorat en langue, linguistique ou traduction*** (6 crédits)
Préalable: 12 crédits de langue, de linguistique ou de traduction au niveau «400». Étude d'un sujet particulier dans le domaine de la langue, de la linguistique ou de la traduction.
N.B.: Toute étudiante et tout étudiant s'inscrivant pour la seconde fois au cours FRAN 490 obtient les crédits FRAN 491 et 492.

FRAN 491 ***Tutorat en langue, linguistique ou traduction*** (3 crédits)
Préalable: 12 crédits de langue, de linguistique ou de traduction au niveau «400». Étude d'un sujet particulier dans le domaine de la langue, de la linguistique ou de la traduction.

FRAN 492 ***Tutorat en langue, linguistique ou traduction*** (3 crédits)
Préalable: 12 crédits de langue, de linguistique ou de traduction au niveau «400». Étude d'un sujet particulier dans le domaine de la langue, de la linguistique ou de la traduction.
N.B.: Toute étudiante et tout étudiant s'inscrivant pour la seconde fois au cours FRAN 491 obtient les crédits FRAN 492.

FRAN 493 ***Tutorat en littérature*** (6 crédits)
Préalable: 12 crédits en littérature et autorisation du département. Étude d'un sujet particulier dans le domaine de la littérature.
N.B.: Toute étudiante et tout étudiant s'inscrivant pour la seconde fois au cours FRAN 493 obtient les crédits FRAN 494 et 495.

FRAN 494 ***Tutorat en littérature*** (3 crédits)
Préalable: 12 crédits en littérature et autorisation du département. Étude d'un sujet particulier dans le domaine de la littérature.

FRAN 495 ***Tutorat en littérature*** (3 crédits)
Préalable: 12 crédits en littérature et autorisation du département. Étude d'un sujet particulier dans le domaine de la littérature.
N.B.: Toute étudiante et tout étudiant s'inscrivant pour la seconde fois au cours FRAN 494 obtient les crédits FRAN 495.

FRAN 496 ***Recherche dirigée*** (6 crédits)
Préalable: 12 crédits dans la spécialité et autorisation du département. Ce cours n'est ouvert qu'aux étudiantes et étudiants des programmes de majeure, de spécialisation ou d'honneurs. Il offre l'occasion d'approfondir l'étude d'un sujet à déterminer par l'étudiante ou l'étudiant en accord avec sa conseillère ou son conseiller et/ou une professeure ou un professeur du département. Chaque étudiante et étudiant exécute des travaux individuels sous le contrôle de la professeure ou du professeur spécialiste de la matière.

FRAN 497 ***Recherche dirigée*** (6 crédits)
Toute étudiante et tout étudiant s'inscrivant pour la seconde fois au cours FRAN 496 obtient les crédits FRAN 497.

FRAN 498 ***Étude avancée d'un sujet particulier*** (3 crédits)

FRAN 499 ***Étude avancée d'un sujet particulier*** (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule.*

Traduction

TRAD 200 ***Méthodologie de la traduction*** (3 crédits)
Préalable: ENGL 209 et FRAN 306 ou équivalent. Ce cours a pour but d'initier l'étudiante et l'étudiant aux problèmes de la traduction. Il sera une introduction générale aux différentes approches du texte à traduire: analyse du discours, grammaire contrastive, stylistique comparée, terminologie et recherche documentaire.
N.B.: Ce cours comporte plusieurs sections, les unes réservées aux étudiantes et étudiants de l'option française, les autres à celles et ceux de l'option anglaise.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 260 ne peuvent obtenir de crédits pour ce cours.

TRAD 201 ***Traduction générale du français à l'anglais*** (3 crédits)
Préalable: TRAD 200. Traduction du français à l'anglais de textes généraux et analyse des problèmes liés au transfert linguistique. (A)
N.B.: Les étudiantes et étudiants qui ont suivi TRAD 202 ne peuvent obtenir de crédits pour ce cours.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 261 ne peuvent obtenir de crédits pour le cours TRAD 201.

TRAD 202 ***Traduction générale de l'anglais au français*** (3 crédits)
Préalable: TRAD 200. Traduction de l'anglais au français de textes généraux et analyse des problèmes liés au transfert linguistique. (F)
N.B.: Les étudiantes et étudiants qui ont suivi TRAD 201 ne peuvent obtenir de crédits pour ce cours.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 261 ne peuvent obtenir de crédits pour ce cours.

TRAD 298 ***Étude d'un sujet particulier*** (3 crédits)

TRAD 299 ***Étude d'un sujet particulier*** (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule.*

TRAD 301 ***Traduction littéraire du français à l'anglais*** (3 crédits)
Préalable: TRAD 201. Sensibilisation aux problèmes spécifiques à la traduction littéraire. Travaux pratiques: traduction de textes de genres variés. (A)
N.B.: Les étudiantes et étudiants qui ont suivi TRAD 302 ne peuvent obtenir de crédits pour ce cours.
N.B.: Les étudiantes et étudiants qui ont suivi FRAN 360 ne peuvent obtenir de crédits pour ce cours.

TRAD 302 ***Thème et analyse de texte*** (3 crédits)
Préalable: TRAD 202. Ce cours de traduction générale permet à l'étudiante ou l'étudiant de traduire vers la langue qui ne sera pas sa langue de travail régulière. L'accent sera donc mis sur l'analyse du texte de départ ainsi que sur les problèmes de formulation dans la langue d'arrivée. La pratique du thème vise à sensibiliser l'étudiante ou l'étudiant aux subtilités de ce qui est normalement sa langue de départ. (F)
N.B.: Les étudiantes et étudiants qui ont suivi TRAD 301 ne peuvent obtenir de crédits pour ce cours.

TRAD 303 ***Thème et analyse de texte*** (3 crédits)
Préalable: TRAD 201. Ce cours de traduction générale permet à l'étudiante ou l'étudiant de traduire vers la langue qui ne sera pas sa langue de travail régulière. L'accent sera donc mis sur l'analyse du texte de départ ainsi que sur les problèmes de formulation dans la langue d'arrivée. La pratique du thème vise à sensibiliser l'étudiante ou l'étudiant aux subtilités de ce qui est normalement sa langue de départ. (A)
N.B.: Les étudiantes et étudiants qui ont suivi TRAD 304 ne peuvent obtenir de crédits pour ce cours.

TRAD 304 ***Traduction littéraire de l'anglais au français*** (3 crédits)
Préalable: TRAD 202. Sensibilisation aux problèmes spécifiques à la traduction littéraire. Travaux pratiques: traduction de textes de genres variés. (F)
N.B.: Les étudiantes et étudiants qui ont suivi TRAD 303 ne peuvent obtenir de crédits pour ce cours.

TRAD 310 ***Initiation à la terminologie*** (3 crédits)
Préalable: TRAD 201 ou 202. Ce cours identifie certains problèmes de terminologie soulevés par la traduction et comprend des travaux pratiques tels que l'analyse lexicographique de textes français ou anglais et la préparation de glossaires sur fiches. (F/A)

TRAD 311 ***Terminologie pratique*** (3 crédits)
Préalable: TRAD 310. Ce cours fait suite à l'initiation à la terminologie. Rédaction de dossiers terminologiques; étude des définitions, notes et contextes; analyse sémique; études néologiques. (F/A)

TRAD 398 ***Étude d'un sujet particulier*** (3 crédits)

TRAD 399 ***Étude d'un sujet particulier*** (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule.*

TRAD 401 ***Traduction littéraire avancée: du français à l'anglais*** (3 crédits)
Préalables: TRAD 301 et 303. Étude des différents principes et des différentes techniques de la traduction littéraire; aperçu de la traduction littéraire au Canada. Travaux pratiques: analyse critique et comparaison de traductions et de leur original; traduction de textes français. (A)

TRAD 402 ***Traduction littéraire avancée: de l'anglais au français*** (3 crédits)
Préalables: TRAD 302 et 304. Étude des différents principes et des différentes techniques de la traduction littéraire; aperçu de la traduction littéraire au Canada. Travaux pratiques: analyse critique et comparaison de traductions et de leur original; traduction de textes anglais. (F)

TRAD 403 ***Traduction scientifique et technique du français à anglais*** (3 crédits)
Préalable: TRAD 201. Initiation aux différents domaines de la traduction technique et scientifique. Le semestre sera divisé en modules. Chaque module sera confié à une traductrice ou un traducteur spécialisé dans un domaine particulier. (A)

TRAD 404 ***Traduction scientifique et technique de l'anglais au français*** (3 crédits)
Préalable: TRAD 202. Initiation aux différents domaines de la traduction technique et scientifique. Le semestre sera divisé en modules. Chaque module sera confié à une traductrice ou un traducteur spécialisé dans un domaine particulier. (F)

TRAD 405 ***Traduction commerciale et juridique du français à l'anglais*** (3 crédits)
Préalable: TRAD 201. Initiation aux différents problèmes de la traduction administrative, commerciale et juridique du français à l'anglais. Le cours sera divisé en modules. Chaque module sera confié à une traductrice ou un traducteur spécialisé dans un des domaines abordés. (A)

TRAD 406 ***Traduction commerciale et juridique de l'anglais au français*** (3 crédits)
Préalable: TRAD 202. Initiation aux différents problèmes de la traduction administrative, commerciale et juridique de l'anglais au français. Le cours sera divisé en modules. Chaque module sera confié à une traductrice ou un traducteur spécialisé dans un des domaines abordés. (F)

TRAD 408 ***Adaptation publicitaire*** (3 crédits)
Préalable: TRAD 201 ou 202. Initiation à l'adaptation de textes publicitaires. À partir d'exemples empruntés à la publicité écrite, radiophonique ou télévisée, les étudiantes et étudiants seront amenés à se familiariser avec les problèmes linguistiques, affectifs et sociaux soulevés par le travail d'adaptation. (F/A)

TRAD 409 ***Révision et correction en traduction*** (3 crédits)
Préalables: TRAD 301 et 303. Ce cours abordera les différentes méthodes de révision et de correction de textes rédigés ou traduits en anglais; il sensibilisera les étudiantes et étudiants aux aspects humains et techniques du

métier de réviseure et réviseur; on touchera aussi aux problèmes de l'évaluation de la qualité des traductions.(A)
N.B.: Les étudiantes et étudiants qui ont suivi TRAD 410 ne peuvent obtenir de crédits pour ce cours.

TRAD 410 ***Révision et correction en traduction*** (3 crédits)
Préalables: TRAD 302 et 304. Ce cours abordera les différentes méthodes de révision et de correction de textes rédigés ou traduits en français; il sensibilisera les étudiantes et étudiants aux aspects humains et techniques du métier de réviseure et réviseur; on touchera aussi aux problèmes de l'évaluation de la qualité des traductions.(F)
N.B.: Les étudiantes et étudiants qui ont suivi TRAD 409 ne peuvent obtenir de crédits pour ce cours.

TRAD 412 ***Théories de la traduction*** (3 crédits)
Préalable: TRAD 301 ou TRAD 304. Ce cours a pour but d'initier l'étudiante et l'étudiant aux différentes théories actuelles de la traduction. On abordera, dans un premier volet du cours, les diverses notions théoriques, et on cherchera à tracer leur évolution. Dans un deuxième volet, on examinera les problèmes théoriques tels qu'ils se posent dans les différents domaines pratiques de la traduction. (F/A)

TRAD 414 ***Histoire de la traduction*** (3 crédits)
Préalable: TRAD 301 ou TRAD 304. Étude de la traduction depuis la Renaissance jusqu'à l'époque moderne. Ce cours traitera également certains des sujets suivants: l'histoire de la traduction au Canada, les politiques linguistiques au Canada, les traductions marquantes en anglais et en français. (F/A)

TRAD 416 ***Informatique et traduction*** (3 crédits)
Préalable: TRAD 201 ou 202, et connaissance du traitement de textes. Terminologie de l'informatique. Applications de l'informatique à la traduction: banques de données, banques de terminologie, traduction assistée par ordinateur. (F/A)

TRAD 420 ***Stage de formation: de l'anglais au français*** (6 crédits)
Préalable: 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction de l'anglais au français et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et tous les candidats.) (F)

TRAD 421 ***Stage de formation: du français à l'anglais*** (6 crédits)
Préalable: 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction du français à l'anglais et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et tous les candidats.) (A)

TRAD 498 ***Étude avancée d'un sujet particulier*** (3 crédits)

TRAD 499 ***Étude avancée d'un sujet particulier*** (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule.*

31.120 EXERCISE SCIENCE

Faculty

Chair
S. JOHN SULLIVAN, *Associate Professor*

Associate Professors
EDMUND F. ENOS
LISE GAUVIN
LOUIS W. JANKOWSKI
ROBERT D. KILGOUR
DAVID L. PARIS
WILLIAM R. SELLERS

Assistant Professor
SHIPING MA

Lecturer
GEORGE D. SHORT

Adjunct Assistant Professors
BARRY GAMBERG
RICHARD POUND
STUART ROBERTSON
KEITH MICHAEL WILKINSON

Location

Loyola Campus
Drummond Auditorium, Room: DA 202
(514) 848-3327

Department Objectives

The Department of Exercise Science is committed to teaching and research in the areas of exercise, health, and physical activity while emphasising the fields of adapted physical activity and athletic therapy. The curriculum permits students to explore the biomechanical, physiological, and psychological responses to physical activity of able-bodied individuals and persons with a variety of physical impairments. Lectures and laboratories are combined with supervised involvement in community and professional activities to provide students with an education relevant to future employment, or for continuing their studies in health-related professional or graduate schools.

The Major programme provides students with the opportunity to acquire essential knowledge and a strong foundation in the field of exercise science. It offers students a concentrated series of courses that incorporates the study of behavioural and biological sciences as applied to exercise, physical activity, and health-related areas.

Where the Major provides students with the essential elements of physical activity as they relate to the healthy adult, the fundamental concept associated with Adapted Physical Activity (APA) is the adaptation of traditional exercise forms, assessment techniques, and training protocols to the needs of persons with an impairment or disability (e.g., the aged, spinal cord injured, etc.). Students entering the field of APA must have an appreciation of persons with a disability, their lifestyle, and their exercise possibilities. The form of the exercise may range from adapted leisure activities via personal exercise to competitive sport.

The Major programme is also included as the foundation to the Athletic Therapy (AT) programmes. Those active in the field of AT are devoted to the health care of physically active individuals, by utilizing various techniques in the prevention, immediate care, and rehabilitation of musculoskeletal injuries. Students (certification candidates) must fulfil the academic and practical requirements of a programme accredited by the Canadian Athletic Therapists Association (CATA) in order to be eligible to write the CATA Certification Exam. The Exercise Science Honours and Specialization programmes in Athletic Therapy have been accredited by the CATA to provide the academic requirement. The scope of practice of the Certified Athletic Therapist includes musculoskeletal and postural evaluation, equipment selection and fitting, conditioning programmes, prophylactic and supportive taping, injury assessment, basic emergency life support, first aid, preparation for entrance into appropriate health-care delivery systems, rehabilitative techniques, modality therapy, and utilization of techniques facilitating a safe return to participation.

Programmes

Students are required to complete the appropriate profile for entry into the programme (see §31.002 — Programmes and Admission Requirements — Profile). All incoming Exercise Science students enter into one of the following programmes: Major, Specialization in Adapted Physical Activity, Specialization in Athletic Therapy.

Students seeking entry into the Honours programme in either Adapted Physical Activity or Athletic Therapy must be enrolled in the appropriate programme of Specialization. Students must also submit

an application form to the Exercise Science Honours adviser for review with respect to University and departmental policy (see §31.003 and 16.2.3)
Students will not normally be accepted into an Honours programme until they have obtained 30 credits at Concordia University. These must include 21 credits (EXCI 201, 207, 210, 221, 253, 255, 261) within the Exercise Science Specialization in Adapted Physical Activity, or 24 credits (EXCI 201, 207, 221,253, 255, 261, 263) within the Exercise Science Specialization in Athletic Therapy.
Students requiring fewer than 30 credits to graduate will not normally be accepted for an Honours programme. The departmental Honours adviser will review all applications and will then direct these to the Faculty Honours Committee for final approval.
Students entering Honours, Specialization, and Major programmes should refer to §16.3.10 — Academic Regulations, and §31.003.1 regarding GPA regulations. The BSc Specialization in Exercise Science follows the Honours programmes in Adapted Physical Activity and Athletic Therapy with the exception of the respective Honours thesis (EXCI 450).

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

66 BSc Honours in Adapted Physical Activity
Stage I
21 EXCI 201[3], 207[3], 210[3], 221[3], 253[3], 255[3], 261[3]
Stage II
24 EXCI 331[3], 342[3], 351[3], 353[3], 357[3], 363[3], 380[3], 381[3]
Stage III
21 EXCI 422[3], 425[3], 450[6], 455[3], 456[3], 483[3]

66 BSc Honours in Athletic Therapy
Stage I
24 EXCI 201[3], 207[3], 221[3], 253[3], 255[3], 261[3], 262[3], 263[3]
Stage II
24 EXCI 331[3], 338[3], 339[3], 342[3], 351[3], 353[3], 357[3], 363[3]
Stage III
18 EXCI 448[3], 449[3], 450[6], 456[3], 480[3]

60 BSc Specialization in Adapted Physical Activity
Stage I
21 EXCI 201[3], 207[3], 210[3], 221[3], 253[3], 255[3], 261[3]
Stage II
24 EXCI 331[3], 342[3], 351[3], 353[3], 357[3], 363[3], 380[3], 381[3]
Stage III
15 EXCI 422[3], 425[3], 455[3], 456[3], 483[3]

60 BSc Specialization in Athletic Therapy
Stage I
24 EXCI 201[3], 207[3], 221[3], 253[3], 255[3], 261[3], 262[3], 263[3]
Stage II
24 EXCI 331[3], 338[3], 339[3], 342[3], 351[3], 353[3], 357[3], 363[3]
Stage III
12 EXCI 448[3], 449[3], 456[3], 480[3]

42 BSc Major in Exercise Science
Stage I
18 EXCI 201[3], 207[3], 221[3], 253[3], 255[3], 261[3]
Stage II
18 EXCI 331[3], 342[3], 351[3], 353[3], 357[3], 363[3]
Stage III
6 EXCI 420[3], 456[3]

***30 Certificate in Outdoor Education**
18 EXCI 270[6], 271[6], 272[6]
12 Elective credits chosen in consultation with the coordinator of the Certificate programme.

**NOTE: Acceptance into the Certificate programme is dependent upon possession of an undergraduate degree by the applicant or graduation from the three-year CEGEP programme no. 391 (Recreation).*
Students may transfer into the Certificate programme up to six credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

Courses

EXCI 201 ***Introduction to Exercise Science*** (3 credits)
Prerequisite: Enrolment in an Exercise Science programme. This course provides an overview of the scientific and professional contributions that have lead to the creation of the field of exercise science. Students are introduced to the scientific foundations of the relationship between physical activity and health, and to the different areas of professional practice in exercise science. Specific emphasis is given to the areas of health and lifestyle, adapted physical activity, and athletic therapy. Lectures only.

EXCI 207 ***Nutrition in Exercise and Sport*** (3 credits)
This course examines the significance of carbohydrates, lipids, and proteins as essential

nutritional requirements for physical activity and optimal performance. The importance of trace minerals and vitamins is also discussed. Specific issues such as nutrient beverages for exercise, ergogenic aids, and nutritional concerns of female athletes are some of the topics that are presented. Lectures only.
NOTE: Students who have received credit for BIOL 203 may not take this course for credit.

EXCI 210 ***Introduction to Adapted Physical Activity*** (3 credits)
Prerequisite: EXCI 201. This course introduces the history and principles of adapted physical activity. The concept of adaptation of physical activity to the needs of persons with physical and intellectual disabilities is discussed. Fundamentals of exercise programming and service delivery relating to disability and sports are also presented. Lectures only.
NOTE: Students who have received credit for EXCI 403 or 404 may not take this course for credit.

EXCI 218 ***Physical Growth and Maturation*** (3 credits)
This course considers normal and abnormal growth and maturation patterns of the musculoskeletal, neural, hormonal, cardiovascular, and respiratory systems of the body. In addition, socialization and psychosocial development processes with relevance to an exercise or sports environment are examined. These patterns and processes are investigated from childhood through adolescence and adulthood. Lectures only.
NOTE: Students who have received credit for EXCI 308 may not take this course for credit.

EXCI 221 ***Statistical Procedures in Exercise Science*** (3 credits)
Prerequisite: Enrolment in an Exercise Science programme. This course provides a description of the statistical analysis techniques most frequently employed in research in exercise science. It addresses measures of central tendency and dispersion, various correlational techniques, and fundamentals of analysis of variance. The use of computers and software for statistical applications is covered through hands-on experience. Lectures and laboratory.
NOTE See §200.7

EXCI 233 ***Current Issues in Personal and Community Health*** (3 credits)
This course presents an overview of factors influencing personal and community health. Students are exposed to prevalent physical and mental health issues from biological, psychological, and sociological points of view. Health-related consequences of alcohol abuse, drugs, birth control, sedentary lifestyle, eating disorders, and communicable diseases are among the topics considered. Lectures only.
NOTE: EXCI students may take EXCI 233 or 331, but not both. Students who have received credit for EXCI 333 may not take this course for credit.

EXCI 251 ***Fundamentals of Health and Physical Activity*** (3 credits)
The basic and contemporary issues of health and physical activity are discussed. General topics regarding the benefits of physical activity are examined from anatomical and physiological perspectives. Lectures only.

EXCI 253 ***Human Anatomy I: The Extremities*** (3 credits)
Prerequisite: Enrolment in an Exercise Science programme. Following an introduction to anatomical terminology, definitions, and tissues, the course concentrates on the appendicular skeleton. The skeletal and muscular systems of the upper and lower extremities are studied in depth. The circulatory and peripheral nervous systems of these areas are also presented to better understand the complete regional relationship for subsequent study in core courses in Exercise Science. Lectures and laboratory.

EXCI 255 ***Human Anatomy II: Head, Neck, and Torso*** (3 credits)
Prerequisite: EXCI 253. The course examines the axial skeleton with emphasis on the nervous, cardiovascular, and respiratory systems. Consideration is also given to the musculoskeletal structures of the head, face, spine, torso, digestive, urinary, and reproductive systems. Lectures and laboratory.

EXCI 261 ***Physical Activity Programming for Health and Performance*** (3 credits)
Prerequisite: EXCI 201 previously or concurrently. This course addresses the scientific principles of physical activity as they apply to the health status, physical fitness, exercise patterns, and effectiveness of exercise prescription relative to the lifestyle of students enrolled in the course. Topics addressed include programming for cardio-respiratory endurance, body composition and weight control, muscle strength and endurance, flexibility, agility, coordination, balance, speed, and power. Lectures and laboratory.

EXCI 262 ***Emergency Care in Exercise and Sport Injuries*** (3 credits)
Prerequisite: EXCI 253 previously or concurrently. This course identifies common injuries and acute pathological conditions associated with physical activity. Students learn to recognize the injury and perform subsequent emergency or initial treatment. The "how" and "why" of emergency treatment are covered. Lectures and laboratory.
NOTE: The Association Québécoise des Thérapeutes du Sport (AQTS) accepts successful completion of this course as equivalent to a first aid course which is a partial requirement towards provincial recognition as a Level I Sport First Aider.

EXCI 263 ***Principles of Athletic Therapy*** (3 credits)
Prerequisite: EXCI 262. The course considers topics in athletic therapy from professional, preventive, and pathological perspectives. The course deals with injury classification, clinical flexibility, strength testing, cryotherapy, and sport dermatology. Preventive techniques such as pre-season physical examinations, protective equipment, hazard recognition, and taping techniques are also addressed. Acute and chronic pathologies associated with physical activity are examined. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 335 may not take this course for credit.

EXCI 270 ***Outdoor Recreation and Leadership*** (6 credits)
This course focuses on using and understanding the environment as a setting for recreation. Learning by experience is emphasized. Potential leaders and administrators in outdoor recreation or outdoor education will find this course of value. Lectures, laboratory; weekend field trips to be arranged.
NOTE: Students who have received credit for EXCI 370 may not take this course for credit.

EXCI 271 ***Scientific Principles of Outdoor Education*** (6 credits)
The course offers a comprehensive analysis of outdoor education. The aims and objectives of outdoor education are examined; organization and administration of model programmes are analysed; innovative units of instruction and outdoor education programmes are evaluated. Students plan, teach, and participate in outdoor learning experiences. Lectures, laboratory, seminars, and field study. This is an intensive four-week summer course that involves participation on some weekends as well as regular classroom study. This course is taught every other summer alternating with EXCI 272.
NOTE: Students who have received credit for EXCI 470 may not take this course for credit.

EXCI 272 ***Outdoor Education — Administration and Implementation*** (6 credits)
The course explores use of the outdoors to enrich the school curriculum. In addition, outdoor education as a strategy in the wider context of education is examined. Students receive instruction in skills necessary for planning, administering, and implementing outdoor education programmes. The philosophical base for this educational approach is assessed, particularly as it pertains to interdisciplinary methods in the elementary and high-school curricula. This is an intensive four-week summer course that involves participation on some weekends as well as regular classroom study. This course is taught every other summer alternating with EXCI 271.
NOTE: Students who have received credit for EXCI 472 may not take this course for credit.

EXCI 298 ***Selected Topics in Exercise Science*** (3 credits)

EXCI 299 ***Selected Topics in Exercise Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

EXCI 331 ***Lifestyle Behaviour and Health*** (3 credits)
Prerequisite: EXCI 201, 221, 261. This course examines the relationship between lifestyle behaviours and physical/mental health. Smoking, diet, eating behaviours, alcohol, drug abuse, exercise, sexual behaviours, and stress/anger/hostility are addressed from four perspectives: prevalence of different lifestyle behaviours in the population, effects of lifestyle behaviour on physical/mental health, methods for changing lifestyle behaviour, and effectiveness of lifestyle behaviour change programmes. Lectures only.

EXCI 338 ***Assessment and Rehabilitation I: Upper Quadrant*** (3 credits)
Prerequisite: EXCI 263. This course examines clinical assessment and rehabilitation protocols. Topics include assessment of medical status, tissue healing, and posture. Applied anatomy, assessment, and surgical procedures of orthopaedic injuries to cervical and thoracic spines and upper extremities, and concomitant rehabilitation programmes are presented. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 336 may not take this course for credit.

EXCI 339 ***Assessment and Rehabilitation II: Lower Quadrant*** (3 credits)
Prerequisite: EXCI 338. This course examines clinical assessment and rehabilitation protocols. Topics include chart recording, proprioception, open and closed kinetic chains, and gait analysis. Applied anatomy, assessment, and surgical procedures of orthopaedic injuries to the lumbar spine and lower extremities, and concomitant rehabilitation programmes are presented. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 336 may not take this course for credit.

EXCI 342 ***Physical Fitness Assessment and Exercise Intervention*** (3 credits)
Prerequisite: EXCI 221, 261. This course introduces students to assessment methodologies and techniques employed for clearance for exercise stress testing, fitness class participation, and exercise prescription. Health components of fitness addressed include body composition, muscular strength and endurance, cardio-respiratory abilities, performance components of agility, balance, coordination, speed, power, and reaction time. Lectures

and laboratory.
NOTE: Students who have received credit for EXCI 398D may not take this course for credit.

EXCI 351 ***Introduction to the Biomechanics of Human Movement*** (3 credits)
Prerequisite: EXCI 255. The primary focus of this course concentrates on the mechanical principles and the neural control mechanisms pertinent to an understanding of human movement. Fundamental principles of kinematics and kinetics are examined in a theoretical and practical context. Practical applications related to sport injuries and rehabilitation are to be discussed. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 451 may not take this course for credit.

EXCI 353 ***Human Physiology I: The Neuromuscular and Endocrine Systems*** (3 credits)
Prerequisite: EXCI 255. This course surveys the functional organization and integration of the major systems of the body. A strong emphasis is placed on the fundamental control and operation of the nervous systems, the mechanisms and energetics of skeletal muscle function, and the actions of hormones that comprise the endocrine and reproductive systems. Lectures and laboratory.

EXCI 357 ***Human Physiology II: The Cardiovascular and Respiratory Systems*** (3 credits)
Prerequisite: EXCI 353. This course deals with the fundamental mechanisms and functional control of the cardiovascular and respiratory systems. A detailed analysis of the rhythmical control of the heart, cardiovascular hemodynamics, capillary and coronary circulations, control of arterial blood pressure, the regulation of heart rate, cardiac output, and the peripheral vasculature is discussed. With respect to respiratory physiology, selected topics including pulmonary mechanics, principles of gas exchange and diffusion, transport of oxygen and carbon dioxide in the blood, and the regulation of respiration are addressed. Lectures and laboratory.

EXCI 363 ***Social Psychological Aspects of Exercise and Physical Activity*** (3 credits)
Prerequisite: EXCI 201, 221, 261. This course provides an overview of the scientific research and practical applications emerging from the subfield of exercise psychology. Topics covered include the psychological outcomes of exercise and physical activity (e.g. decreased depression and anxiety, increased self-efficacy and self-esteem, enhanced quality of life) and the problems of adherence to a physically active lifestyle in different target populations ranging from normal populations to persons with disabilities. Special attention is also given to predictors and consequences of athletic injuries. Lectures and tutorials.

EXCI 380 ***Adapted Physical Activity*** (3 credits)
Prerequisite: EXCI 210. This course examines the pathology associated with selected physical impairments and disabilities including sensorial, neurological, and orthopaedic conditions. Appropriate adapted physical activities are presented together with contraindications to physical activity and the role of environmental factors. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 403 or 404 may not take this course for credit.

EXCI 381 ***Adapted Physical Activity: Exercise Testing, Prescription and Programming*** (3 credits)
Prerequisite: EXCI 342, 380. Assessment strategies and techniques to measure teaching of physical fitness in persons with physical impairments and disabilities are presented. The prescription, design, and delivery of appropriate physical activity programmes are also addressed. Lectures and laboratory.

EXCI 398 ***Selected Topics in Exercise Science*** (3 credits)

EXCI 399 ***Selected Topics in Exercise Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

EXCI 420 ***Current Topics in Health and Exercise*** (3 credits)
Prerequisite: EXCI 357. This course provides a comprehensive discussion of contemporary scientific and professional issues in the field of exercise science. Issues that are examined include the translation of scientific research into principles of practice as well as the development of the physical activity science specialist into a professional. Specific emphasis is given to current topics in the area of health and lifestyle. Lectures and seminars.

EXCI 421 ***Fitness and Sport Management*** (3 credits)
Prerequisite: Completion of 30 university credits. The course considers the administration and management of fitness and sport organizations, and athletic facilities. Concepts include event planning, financial management, legal aspects, public relations, fundraising and marketing techniques, and sport licensing. Lectures only.

EXCI 422 ***Therapeutic Physical Activity*** (3 credits)
Prerequisite: EXCI 381 and 456 concurrently. This course examines the pathology associated with various metabolic, cardiovascular, respiratory, and immunological impairments, and discusses the role of adapted physical activity in the treatment and resolution of these

conditions, and the individuals' health status. Lectures and seminars.
NOTE: Students who have received credit for EXCI 404 may not take this course for credit.

EXCI 425 ***Current Topics in Adapted Physical Activity*** (3 credits)
Prerequisite: EXCI 357, 381. This course addresses current issues in adapted physical activity related to both theory and practice. Topics may include classification schemes, competitive sports for persons with disabilities, pathophysiology, professional roles, and the role of physical activity in improving and maintaining a healthy lifestyle. Lectures and seminars.

EXCI 448 ***Therapeutic Modalities in Sports Medicine*** (3 credits)
Prerequisite: EXCI 339. The student will be introduced to the parameters of therapeutic electrical currents and their physiological effects. Various modalities such as heat, cold, ultrasound, muscle stimulation, interferential currents, T.E.N.S., and therapeutic massage will be examined. Indications and contraindications for all treatments will be presented. Integration of the patient into an exercise programme will also be introduced. Lectures and laboratory.
NOTE: Students who have received credit for EXCI 498C may not take this course for credit.

EXCI 449 ***Current Topics in Sports Medicine*** (3 credits)
Prerequisite: EXCI 448. The course addresses important and controversial issues for the athletic therapist in sports medicine such as laser therapy, micro-currents, acupuncture, mobilization techniques, scoliosis, sudden death in athletes, communicable diseases in sport, sport pharmacology, psychology of pain, the female athlete, and the adolescent athlete. Lectures and seminars.
NOTE: Students who have received credit for EXCI 436 may not take this course for credit.

EXCI 450 ***Honours Thesis in Exercise Science*** (6 credits)
Prerequisite: Enrolment in the Honours programme in Exercise Science. This course requires the student to submit a thesis according to the departmental format. The thesis can be in one of several forms including a substantive and critical analysis of selected topics from the current literature, case study reports, or the proposal and conducting of an original experiment. Chosen by the student, a faculty member from within the Department will supervise the thesis.

EXCI 455 ***Physical Activity, Health and Aging*** (3 credits)
Prerequisite: EXCI 456 previously or concurrently. This course addresses the health status, physical fitness, exercise patterns, and effectiveness of exercise prescription for the well elderly and those exhibiting symptoms of chronic diseases which commonly accompany the aging process. Lectures and laboratory.

EXCI 456 ***Physiology of Exercise*** (3 credits)
Prerequisite: EXCI 357. This course deals with the physiological adjustments and adaptations to physical activity. Special emphasis is placed on examining the functional capacity of the cardiovascular, respiratory, neuromuscular, and endocrine systems to acute exercise and the process of adaptation to exercise training. Lectures and laboratory.

EXCI 480 ***Athletic Therapy Internship*** (3 credits)
Prerequisite: This course is open to students who have completed 60 credits in the EXCI Honours or Specialization programmes in Athletic Therapy; have had a minimum of 100 hours practical exposure in a clinical or team setting; and are certification candidate members of the Canadian Athletic Therapists Association. The course offers a supervised period of work in a rehabilitation or athletic therapy clinic and/or in an emergency or preventative setting with a sports team. The course involves a commitment of 120 hours including a weekly seminar.
NOTE: Students who have received credit for EXCI 460 may not take this course for credit.

EXCI 483 ***Adapted Physical Activity Internship*** (3 credits)
Prerequisite: This course is open to students who have completed 60 credits in the EXCI Honours or Specialization programmes in Adapted Physical Activity. The course offers a supervised period of work as activity leader or exercise technician in a hospital or rehabilitation centre or similar institution; or as a technician assisting in physiological evaluation or a related position. The course involves a commitment of 120 hours including a weekly seminar.
NOTE: Students who have received credit for EXCI 463 may not take this course for credit.

EXCI 491 ***Independent Study in Exercise Science*** (6 credits)
Prerequisite: Completion of 30 credits in the Major programme and written permission of the Department chair. This course provides an opportunity to conduct a small-scale scientific research project under the supervision of a faculty member from the Department. In consultation with a faculty member, the student selects a topic, formulates a research methodology, collects data, analyses the results, and writes a formal research report.

EXCI 498 ***Advanced Topics in Exercise Science*** (3 credits)

EXCI 499 ***Advanced Topics in Exercise Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.130 GEOGRAPHY

Faculty

Chair
PATRICIA A. THORNTON

Professors
S. ROBERT AIKEN
BRIAN SLACK

Associate Professors
JACQUELINE M. ANDERSON
I. MAX BARLOW
DAVID B. FROST
DAVID F. GREENE
ALAN E. NASH
SUSAN SHEETS-PYENSON
JAMES W. YOUNG
JOHN ZACHARIAS

Assistant Professors
MONICA MULRENNAN
HAIQING XU

Location

Sir George Williams Campus
J.W. McConnell Building, Room: LB 641
(514) 848-2050

Department Objectives

The Department of Geography emphasizes the multidisciplinary nature of the field. In its studies of the environment, of places and regions, and of societal issues, geography spans the social sciences, the natural sciences, and the humanities.
Whether a student's special interest tends to physical geography or human systems, programmes encourage a holistic perspective. The Department aims to produce students who are knowledgeable about both global and community issues and sensitive to both the human and physical environment.

Programmes

BSc Programmes
Students are required to complete the appropriate entrance profile for entry into the programme (see §31.002 — Programmes and Admission Requirements — Profiles).

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Geography

Pattern A: Physical Geography
Stage I
18 GEOG 211[6], 267[3], 268[3], 271[6]
Stage II & III
9 GEOG 347[3], 361[3], 362[3]
12 Chosen from GEOG 371[6], 372[6], 373[6]
Stage III
12 GEOG 369[3], 391[3], 491[6]
6 400-level GEOG credits chosen with approval of the Geography adviser
3 Elective credits in Geography at the 300-400 level

Pattern B: Human Geography
Stage I
18 GEOG 211[6], 267[3], 268[3], 271[6]
Stages II & III
9 GEOG 347[3], 361[3], 362[3]
12 Chosen from GEOG 312[3], 315[3], 317[3], 325[3], 331[6], 358[3], 359[3]
Stage III
12 GEOG 369[3], 391[3], 491[6]
9 Elective credits in Geography at the 300-400 level chosen with approval of the Geography adviser

60 BA Specialization in Geography

Pattern A: Physical Geography
Stage I
18 GEOG 211[6], 267[3], 268[3], 271[6]
Stage II
9 GEOG 347[3], 361[3], 362[3]
12 Chosen from GEOG 371[6], 372[6], 373[6]
Stage III
6 GEOG 369[3], 391[3]
6 400-level GEOG credits chosen with approval of the Geography adviser
9 Elective credits in Geography at the 300-400 level

Pattern B: Human Geography
Stage I
18 GEOG 211[6], 267[3], 268[3], 271[6]
Stage II
9 GEOG 347[3], 361[3], 362[3]
12 Chosen from GEOG 312[3], 315[3], 317[3], 325[3], 331[6], 358[3], 359[3]
Stage III
6 GEOG 369[3], 391[3]
15 Elective credits in Geography at the 300-400 level chosen with approval of the Geography adviser

75 BSc Specialization in Resource Analysis and Land Use
See § 31.140 – Geology

42 BA Major in Geography
Stage I
18 GEOG 211[6], 267[3], 268[3], 271[6]
Stage II
9 GEOG 347[3], 361[3], 362[3]
Stage III
15 Elective credits in Geography at the 300-400 level

60 BA Specialization in Human-Environment Relationships
Stage I
18 GEOG 211[6], 267[3], 268[3], 271[6]
Stage II
12 GEOG 303[3], 304[3], 361[3], 362[3]
Stage III
6 GEOG 403[3], 404[3]
Stages II and III
24 Chosen from List A and List B including at least six credits and no more than 24 credits in Geography. No more than six credits may be at the 200 level.

List A
GEOG 371[6], 372[6], 477[3]; BIOL 207[3], 225[3*], 226[3*], 352[3*], 355[3*], 398[3*], 452[3*], 454[3*]; CHEM 208[3], 302[2], 304[3]; GEOL 332[3*], 424[3]; PHYS 270[3], 273[3]

List B
GEOG 306[3], 315[3], 317[3], 355[3]; ECON 391[3*], 396[3*]; POLI 361[3], 363[3], 385[3], 421[3], 461[3], 462[6], 465[3]; ANTH 270[3], 430[3*]; SOCI 323[3*], SCHA 253[3], 254[3]

**These courses have prerequisites which are not included in these lists. Please consult the Calendar.*

42 BA Major in Human-Environment Relationships
Stage I
18 GEOG 211[6], 267[3], 268[3], 271[6]
Stage II
3 GEOG 303[3]
6 GEOG 371[6] or 372[6]
Stage III
3 GEOG 403[3]
12 Chosen from GEOG 304[3], 306[3], 315[3], 317[3], 352[3], 353[3], 355[3], 404[3]

66 BSc Specialization in Geography
15 GEOG 211[6], 267[3], 271[6]
6 GEOG 361[3], 362[3]
12 Chosen from GEOG 371[6], 372[6], 373[6],
6 Chosen from 475[3], 476[3], 477[3]
27 Chosen from one of the following groups: Environmental Geography, Hydrology. Selection of a coherent programme must be made in consultation with the departmental adviser. No more than 15 may be Geography credits.

ENVIRONMENTAL GEOGRAPHY
Approved 300-400 level GEOG courses; BIOL 225[3], 226[3], 227[3], 344[3], 352[3], 355[3], 356[3], 359[3], 452[3], 454[3]; PHYS 243[3], 244[3], 273[3], 291[1], 292[1]; GEOL 212[3]; MATH 210[3], 271[3], 310[3], 371[3]

HYDROLOGY
Approved 300-400 level GEOG courses; BIOL 225[3], 226[3], 227[3], 355[3], 454[3]; CHEM 302[2]; GEOL 210[3], 213[3], 224[3]; MATH 210[3], 262[3], 263[3], 271[3], 371[3]; PHYS 243[3], 244[3], 291[1], 292[1], 334[3], 393[1]

NOTE: Many non-Geography courses require prerequisites that are not part of the Geography programme.

42 BSc Major in Geography
18 GEOG 211[6], 267[3], 268[3], 271[6]
6 GEOG 361[3], 362[3]
12 Chosen from GEOG 371[6], 372[6], 373[6]
6 Chosen from GEOG 475[3], 476[3], 477[3]

30 Minor in Geography
12 GEOG 211[6], 271[6]
3 GEOG 267[3] or 268[3]
15 GEOG elective credits at the 300-400 level

Students in programmes leading to the BSc degree may take the courses in Geography listed below for credits to be applied to their programme of concentration.

GEOG 267 Introductory Cartography (3 credits)
GEOG 271 The Natural Environment (6 credits)
GEOG 275 Climate and the Biosphere (3 credits)
GEOG 276 Landforms and the Biosphere (3 credits)
GEOG 362 Quantitative Geography (3 credits)
GEOG 366 Intermediate Cartography (3 credits)
GEOG 371 Biogeography (6 credits)
GEOG 372 Analysis of the Environment (6 credits)
GEOG 373 Climatology (6 credits)
GEOG 462 Advanced Cartography (3 credits)
GEOG 475 Hydrology I (3 credits)
GEOG 476 Hydrology II (3 credits)
GEOG 477 The Geography of Soils (3 credits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

GEOG 202 ***Habitat and Society*** (3 credits)
A general introduction to the relationship between physical and cultural distributions on the Earth's surface. Global patterns of human, economic, and natural resources are examined.

GEOG 211 ***Introduction to Human Geography*** (6 credits)
A study of the evolution of the Earth's populated areas and the gradual enlargement of geographical horizons. The emphasis is on cultural distributions, landscape and settlement, and the geography of economic, social, and political activities.

GEOG 267 ***Introductory Cartography*** (3 credits)
This course covers the nature and scope of cartography. An examination of the compilation and design of topographic and thematic maps provides insight into the strengths and limitations of maps as vehicles for representing spatial information.
NOTE: Students who have received credit for GEOG 262 may not take this course for credit.

GEOG 268 ***Introduction to Geographical Techniques*** (3 credits)
Prerequisite: Open only to students in Geography programmes. This course introduces students to the basic literacy, numeracy, and graphic skills used in the collection, analysis, and presentation of geographical information. Laboratory and tutorials.

GEOG 271 ***The Natural Environment*** (6 credits)
An introduction to the Earth sciences as they relate to the biophysical environment, with special emphasis on weather, climate, and the evolution of landscape.
NOTE: Students who have received credit for either GEOG 275 or 276 may not take this course for credit.

GEOG 273 ***The Sea*** (6 credits)
A physical, historical, and human geography of the world ocean. The course includes an introduction to oceanography, navigation, and elementary geophysics, as well as an account of travels and discovery ending with modern scientific exploration of the deep. Topics include coasts and islands; ports, ships, and shipping; submarine topography; waves, tides, and earthquakes; marine life, fish, and fisheries.

GEOG 275 ***Climate and the Biosphere*** (3 credits)
A study of the energy systems of the atmosphere and an introduction to environmental geography. The hydrologic cycle, world climates, and weather systems. Interrelationships in the biosphere and human impact upon them. Weather and climate maps are also studied. Lectures: Three hours per week, including laboratory.
NOTE: Students who have received credit for GEOG 271 may not take this course for credit.

GEOG 276 ***Landforms and the Biosphere*** (3 credits)
An introduction to the energy systems of the Earth's crust and oceans, and the processes that have shaped our environment. The evolution of land forms and human impact upon landscapes. The Pleistocene and Recent epochs in Canada, and their effects on soils and land use. The study of relevant topographic land-use maps and aerial photographs. Lectures: Three hours per week, including laboratory.
NOTE: Students who have received credit for GEOG 271 may not take this course for credit.

GEOG 298 ***Selected Topics in Geography*** (3 credits)

GEOG 299 ***Selected Topics in Geography*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and the Geography Course Guide.

GEOG 303 ***Human-Environment Relations: A Framework for Analysis*** (3 credits)
Prerequisite: GEOG 211, 267; GEOG 271 or GEOG 275 and 276. This course emphasizes the global nature of environmental issues and provides a holistic framework for the analysis of human-environment relations. It examines the role of economy, social institutions, and values in shaping human relationships to the environment and how these have changed over time. It explores the spatial and structural interdependence among human societies and the environment. The course stresses concepts and theories rather than practical experience. However, students will be expected to apply concepts, theories, and methods of analysis to the examination of specific human-induced environmental problems.
NOTE: Students who have received credit for GEOG 305 may not take this course for credit.
NOTE: Prerequisites of GEOG 271 or GEOG 275 and 276 are waived for students in the BSc Land Use and Resource Analysis programme. (Dept. of Geology)

GEOG 304 ***Human-Environment Relations: Population, Culture, Land and Resources*** (3 credits)
Prerequisite: GEOG 211, 267; GEOG 271 or

GEOG 275 and 276; GEOG 303. This tutorial course is a continuation of GEOG 303. Five topics are examined: the relationship between population growth and resources, values and attitudes to the environment, land tenure and its relationship to population growth and resource management, property rights and their impact on environmental management, holistic theories of conservation and development of resources. *NOTE: Students who have received credit for GEOG 305 may not take this course for credit.*

GEOG 306 ***The Tropical Rain Forest*** (3 credits)
Prerequisite: Six GEOG credits, or permission of the Department. The course focuses on three themes: how tropical forest ecosystems function and change; the causes and consequences of forest conversion, and the relations between conservation and sustainable development. The course concludes with a detailed case study. Lectures only.
NOTE: Students who have received credit for this topic under a GEOG 398 or 498 number may not take this course for credit.

GEOG 312 ***Political Geography*** (3 credits)
Prerequisite: GEOG 211, or permission of the Department. The course is structured around traditional and contemporary themes in political geography. Emphasis is on the political/administrative organization of space, the interrelationships between politics and environment, electoral geography, and the geographical aspects of public policy.

GEOG 313 ***Montréal: Habitat and Society*** (6 credits)
Prerequisite: GEOG 211, or permission of the Department. The course is an introduction to the urban geography of Montréal, both past and present. Three themes are investigated. They are: (a) "habitat": the biophysical environment of the site, the growth of the physical fabric of the city, and the evolution of its architectural forms; (b) "society and ways of life": the origins and growth of population, the ethnic and cultural heritage of the city, and the pattern of social areas within the metropolitan region; and (c) "the contemporary urban scene": the personality of the city's landmarks, nodes, streetscapes, and districts. Fieldwork is an important part of the course.

GEOG 315 ***Cultural Geography*** (3 credits)
Prerequisite: GEOG 211, or permission of the Department. Cultural Geography is concerned with the application of the concept of culture to geographic problems. Attention is focused on the spatial *patterning* of material and non-material elements of culture (culture areas); on the *processes* of cultural, temporal, and spatial change; on the *relationships* between people and land (cultural ecology); and especially on how these relationships are reflected in different *ensembles* of people and land (cultural landscapes).

GEOG 317 ***Population Geography*** (3 credits)
Prerequisite: GEOG 211, or permission of the Department. The characteristics, dynamics, and distribution of world populations. Census data and techniques of census analysis. Rural/urban populations and their varying proportions. The vital processes of population change; natural increase and migration. Growth rates, population policies, and population pressure. Study of selected groups. The demographic prospects.

GEOG 325 ***Introduction to Historical Geography*** (3 credits)
Prerequisite: GEOG 211, or permission of the Department. This course aims to develop a geographical understanding of the past for its own sake and for its relevance to interpreting present geographical patterns of population, settlement, and economic activity. The focus is on sources and techniques in historical geography. These are demonstrated through case studies of selected themes and problems.

GEOG 331 ***Urban Geography*** (6 credits)
Prerequisite: GEOG 211 or URBS 280, or permission of the Department. The course focuses on the contemporary Western city. It explores the spatial structure of national systems of cities, and examines internal land use and social and political patterns. A major concern is the application of geographical ideas and concepts to modern urban problems.

GEOG 347 ***Geography of Canada*** (3 credits)
Prerequisite: Six credits in Geography, or permission of the Department. An overview of the bases of regional differentiation in Canada. The course provides an analysis of cultural landscapes, the space economy, and environmental issues.

GEOG 352 ***Geography of Recreation*** (3 credits)
Prerequisite: GEOG 211 or 30 credits in the Leisure Studies programme, or permission of the Department. The course examines the geographical aspects of recreation. The approaches followed are from the viewpoints of spatial patterns, landscape analysis, and environmental issues. The topics studied are within the framework of (i) recreation in the countryside and (ii) recreation in the city. Specific topics include national parks, recreation land capability analysis, landscape evaluation, and city parks.
NOTE: Students who have received credit for GEOG 356 may not take this course for credit.

GEOG 353 ***International Tourism*** (3 credits)
Prerequisite: GEOG 211 or 30 credits in the Leisure Studies programme, or permission of the Department. The course examines the geographical aspects of international tourism. Topics studied include the analysis of tourist

flows, the role of tourism in area development, the spatial aspects of selected elements of tourism (such as transportation and marketing), and geographical analysis of resort cities.
NOTE: Students who have received credit for GEOG 356 may not take this course for credit.

GEOG 355 ***Resource Management*** (3 credits)
Prerequisite: GEOG 211, or permission of the Department. Problems of resource inventories and allocations between users, present and future, are examined with examples drawn from land use, energy, and fishing. Particular emphasis is placed on perceptions and attitudes of resource users, and on institutional and policy models of resource management.

GEOG 358 ***Economic Geography I*** (3 credits)
Prerequisite: GEOG 211, or permission of the Department. This course deals with the spatial organization of agricultural land use, industrial patterns, and networks, with some attention given to tertiary activities and urban land use. The focus is on the classical location theories — Von Thunen, Weber, Lösch and Christaller — and their application to behaviour in the real world, characterized by individual and corporate decision-making. Selected examples of real-world distribution are considered.

GEOG 359 ***Economic Geography II*** (3 credits)
Prerequisite: GEOG 211, 358, or permission of the Department. The aim is to integrate the various aspects of GEOG 358 by focusing on the question of regional systems and development. The course examines various models of regional structure, such as the heartland-periphery paradigm and integrated spatial systems. Consideration is given to current restructuring of the spatial division of labour.

GEOG 361 ***Geographical Research*** (3 credits)
Prerequisite: GEOG 211, 267, 268*; GEOG 271 or GEOG 275 and 276; or permission of the Department. The course presents methods and techniques used to acquire, analyse, and communicate original geographical information in the field, laboratory, and archives. The course may include a weekend field camp.
**This requirement is waived for students in the BSc Geography programme.*

GEOG 362 ***Quantitative Geography*** (3 credits)
Prerequisite: GEOG 361. A course in the applications of descriptive and analytical statistical techniques in geography. Lectures and laboratory. *NOTE A/See §200.7*

GEOG 363 ***Introduction to Geographical Information Systems*** (3 credits)
Prerequisite: GEOG 267, 362, and permission of the Department. The objective of this course is to provide an understanding of conceptual problems in spatial analyses and the use of Geographical Information Systems (GIS) in such applications. Topics to be covered are data preprocessing; data structures and management; and various manipulations including reclassification, overlays, distance and connectivity measurements, and spatial filters. Instruction is built around manual and computer exercises drawn from environmental and socio-economic problems. The course is an overview of GIS and is not intended to provide technical training in any GIS computer package. Lectures and laboratory.
NOTE: Students who have received credit for this topic under a GEOG 398 number may not take this course for credit.

GEOG 366 ***Intermediate Cartography*** (3 credits)
Prerequisite: Permission of the Department. The focus of this course is the detailed study of the nature of graphic variables together with their implementation, by traditional and computer methods, in black and white small-scale mapping. The course includes lectures, seminars, practical assignments, and relevant field trips.

GEOG 369 ***Field Studies in Geography*** (3 credits)
Prerequisite: GEOG 361 and permission of the Department. A field course in which a selected area is intensively studied.

GEOG 371 ***Biogeography*** (6 credits)
Prerequisite: GEOG 271 or GEOG 275 and 276, or permission of the Department. A study of the distribution of plants and animals, with emphasis on their soil and climatic interrelations. Relevant field trips are included.

GEOG 372 ***Analysis of the Environment*** (6 credits)
Prerequisite: GEOG 271 or GEOG 275 and 276, or permission of the Department. A review of the processes operational in the biophysical environment with an emphasis upon applied methodologies for water resources survey, capability mapping, environmental assessment, and conservation planning. The course includes a discussion of the Quaternary era in terms of environmental change.

GEOG 373 ***Climatology*** (6 credits)
Prerequisite: GEOG 271 or GEOG 275 and 276, or permission of the Department. The broad aspects of world regional climates considered from the point of view of both physical and dynamic climatology. The course includes practical work.

GEOG 391 ***History of Geographical Thought*** (3 credits)
Prerequisite: Eighteen credits in Geography, or permission of the Department. A study of the

development of the field of geography from ancient times down to the present. Representative geographical works of the Greeks, the Romans, and of the Middle Ages, the Age of Discovery, the nineteenth and twentieth centuries are examined and discussed. The present-day concepts of the field and function of geography receive special attention.

GEOG 398 ***Selected Topics in Geography*** (3 credits)

GEOG 399 ***Selected Topics in Geography*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and Geography Course Guide.

GEOG 403 ***Human-Environment Relations: Sustainable Development*** (3 credits)
Prerequisite: GEOG 211, 267; GEOG 271 or GEOG 275 and 276; GEOG 303. This course deals with selected aspects of the relations between humans and the environment in the contemporary world. It focuses specifically on the concept of sustainable development and deals mainly with problems and issues at the global scale.
NOTE: Students who have received credit for GEOG 405 may not take this course for credit.
NOTE: Prerequisites of GEOG 271 or GEOG 275 and 276 are waived for students in the BSc Land Use and Resource Analysis Programme. (Dept. of Geology)

GEOG 404 ***Human-Environment Relations: Case-Study and Practice*** (3 credits)
Prerequisite: GEOG 403. The precise content of this course varies from year to year. The focus is on empirical analysis of contemporary Canadian human-environment problems and issues. This course has a tutorial format, in which students work together in problem-solving with respect to specific human-environment issues.
NOTE: Students who have received credit for GEOG 405 may not take this course for credit.

GEOG 462 ***Advanced Cartography*** (3 credits)
Prerequisite: GEOG 366. This course exposes students to many of the issues and problems faced by the cartographer in compiling, designing, and producing colour maps. A laboratory assignment of a practical nature forms an important part of the course.

GEOG 475 ***Hydrology I*** (3 credits)
Prerequisite: GEOG 271; GEOG 371 or 372 or 373; or permission of the Department. Theories and practice of hydrology, with emphasis on geographical aspects and resource utilization. Includes introduction to glaciology.

GEOG 476 ***Hydrology II*** (3 credits)
Prerequisite: GEOG 475. Soil moisture experiments, textural analysis, hydrological models, and field trips.

GEOG 477 ***The Geography of Soils*** (3 credits)
Prerequisite: GEOG 271; GEOG 371 or 372 or 373; or permission of the Department. This course examines the basic properties of soils and the processes operating within them. The major soil types and their distribution are surveyed together with aspects of soil degradation. Lectures, laboratory, and fieldwork.
NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 491 ***Honours Essay*** (6 credits)
Prerequisite: Permission of the Department. The course requires the student to propose and conduct a research project and to produce a substantial report under the supervision of a faculty adviser.

GEOG 498 ***Advanced Topics in Geography*** (3 credits)

GEOG 499 ***Advanced Topics in Geography*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and Geography Course Guide.

31.140 GEOLOGY

Faculty

Chair
DAVID B. FROST, *Associate Professor*

Professor
STEPHEN KUMARAPELI

Adjunct Professor
DAVID J. McDOUGALL

Associate Professors
JOHN T. JENKINS
KALYAN K. MUKHERJI
GIAMPAOLO P. SASSANO

Assistant Professors
COLLEEN ELLIOTT
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ABDEL-FATAH M. ABDEL-RAHMAN
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Location

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Department Objectives

Geology is about the Earth and how natural processes change and shape the environment. The Department acknowledges the influence of industrial and human activity on this planet with programmes that incorporate interdisciplinary and environmental aspects of geology. Integrated studies through lectures, laboratory, and field studies in small class sizes are the norm. Advanced students are encouraged to undertake research projects.

Programmes

In addition to programmes in geology, the Department, in cooperation with the Physics, Chemistry and Biochemistry, Geography, and Biology Departments, offers four geology-based interdisciplinary programmes. The Geology-Physics and Geology-Chemistry programmes are designed for students who wish to pursue careers in geophysics and geochemistry respectively, through subsequent job training or graduate studies. The programme in Resource Analysis and Land Use is designed to develop the conceptual and technical facility to enable graduating students to make objective judgements regarding the resource potential and land use of a geographical region. The programme in Geology-Ecology is designed to provide a strong foundation in geology with an orientation towards ecology as a subdiscipline of biology.
Students are required to complete the appropriate entrance profile for entry into the programme (see §31.002 — Programmes and Admission Requirements — Profiles).

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

69 BSc Honours in Geology
Stage I
18 GEOL 210[3], 211[3], 212[3], 213[3], 216[3], 231[3]
3 COMP 212[3]
3 Chosen from BIOL 322[3], GEOG 362[3]
Stage II
24 GEOL 311[6], 313[3], 314[3], 316[3], 318[3], 331[3], 332[3]
Stage III
21 GEOL 411[6], 413[3], 414[6], 415[3], 417[3]

63 BSc Specialization in Geology
Stage I
18 GEOL 210[3], 211[3], 212[3], 213[3], 216[3], 231[3]
3 COMP 212[3]
3 Chosen from BIOL 322[3], GEOG 362[3]
Stage II
24 GEOL 311[6], 313[3], 314[3], 316[3], 318[3], 331[3], 332[3]
Stage III
15 GEOL 411[6], 413[3], 415[3], 417[3]

83 BSc Specialization in Geology-Physics
Stage I
30 GEOL 210[3], 211[3], 212[3], 213[3]; PHYS 232[3], 243[3], 253[3], 254[3]; MATH 262[3], 263[3]
Stages II & III
24 GEOL 216[3], 231[3], 311[6], 331[3], 332[3], 415[3], 422[3]
9 Chosen from GEOL 232[3] and Geology 300- and 400-level courses
10 PHYS 291[1], 293[1], 295[2], 334[3], 364[3]
10 Chosen from PHYS 244[3], 252[3], 292[1], 294[1], 297[1], 335[3], 336[3], 393[1], 394[1], 465[3], 495[1]

84 BSc Specialization in Geology-Chemistry
Stage I
30 GEOL 210[3], 211[3], 212[3], 213[3], 216[3];

CHEM 217[3], 218[3], 241[3], 242[3]; COMP 212[3]

Stages II & III

18 GEOL 231[3], 311[6], 331[3], 332[3], 415[3]
12 Chosen from GEOL 232[3], 313[3], 411[6], 417[3]
18 CHEM 234[3], 235[3], 312[3], 333[3], 334[3], 341[3]
6 Chosen from CHEM 221[3], 222[3], 398[3], 498[3]

78 BSc Specialization in Resource Analysis and Land Use

Stage I

27 GEOL 210[3], 211[3], 212[3], 213[3], 216[3], 231[3]; GEOG 211[6], 267[3]

Stages II & III

15 GEOL 311[6], 331[3], 332[3], 415[3]
12 Chosen from GEOL 232[3] and Geology 300- and 400-level courses
18 GEOG 303[3], 317[3], 355[3], 372[6], 475[3]
6 from either POLI 361[3], 363[3] or *ECON 391[3], 396[3]

**Requires prerequisites of ECON 201[3], ECON 203[3]*

78 BSc Specialization in Geology-Ecology

Stage I

24 GEOL 210[3], 211[3], 212[3], 213[3]; BIOL 225[3], 226[3], 227[3], 322[3]

Stages II & III

24 GEOL 216[3], 224[3], 231[3], 311[6], 331[3], 332[3], 415[3]
9 Chosen from GEOL 232[3] and Geology 300- and 400-level courses
15 BIOL 352[3], 355[3], 356[3], 359[3], 381[3]
6 Chosen from BIOL 344[3], 431[3], 454[3], 456[3]

39 BSc Major in Geology

Stage I

18 GEOL 210[3], 211[3], 212[3], 213[3], 216[3], 231[3]

Stages II & III

15 GEOL 311[6], 331[3], 332[3], 415[3]
6 Chosen from GEOL 232[3] and Geology 300- and 400-level courses

24 Minor in Geology

12 GEOL 210[3], 211[3], 212[3], 213[3]
12 GEOL elective credits

NOTE: GEOL 203[3], 205[3], 206[3], 208[3] cover topics of general interest in Earth sciences and may be taken by students without a strong background in science.

Students without CEGEP Geology 901 or equivalent are required to take GEOL 210[3].

Field Trips and Field Schools

Field trips, normally conducted on week-ends, are mandatory in some of the Geology courses. In addition, two field schools (GEOL 216, GEOL 316) are conducted by the staff in the two weeks immediately following the spring exams. Enrolment in field schools is normally restricted to students registered in programmes for which they are required courses. Other Geology students with appropriate prerequisites will be accepted only if space is available in the courses.

Summer Employment

It is strongly recommended that, prior to graduation, at least one summer be spent in some phase of geological work. Although the Department of Geology cannot guarantee summer employment, its students can normally expect to work in geology with government agencies or private exploration companies during the summer months.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

GEOL 203 ***Introduction to Environmental Geology*** (3 credits)

Prerequisite: None; GEOL 210 recommended. Geology in the ecosystem. The Earth's atmosphere, hydrosphere, lithosphere, and biosphere in geologic time. Long-range geological effects of ecosphere pollution. Trace nutrients and health, with emphasis on the geology of trace-elements and their cause and effect on biological systems. Understanding of, control for, and prevention of natural hazards. Changes in the Earth's climate. Role of geology in land use. Lectures only.

NOTE: Students in degree programmes in Geology may not take this course for Geology credits.

GEOL 205 ***Non-Renewable Resources*** (3 credits)

Prerequisite: None; GEOL 210 recommended. Rocks and ore minerals. Present and future availability of Earth resources. The nature, classification, and mode of occurrence of mineral deposits. Exploration, development, and rational exploitation of mineral resources. Elements of mining economics. Distribution of oil, gas, coal, and base-metal deposits. Evaluation of the effects of mining operations on

the environment. Lectures only.
NOTE: Students in degree programmes in Geology may not take this course for Geology credits.

GEOL 206 ***Earthquakes, Drifting Continents and Volcanoes*** (3 credits)
The aim of the course is to provide an up-to-date account of our present knowledge of earthquakes and volcanoes and their global connections which are of general interest for students with little or no previous background in Earth sciences. Areas of concentration are: nature, distribution, and causes of earthquakes and volcanic eruptions, earthquake waves and their effects, measuring earthquakes, great earthquakes and volcanic eruptions in world history, products of volcanic eruptions, four billion years of volcanism on the Earth and elsewhere in the solar system. Prediction of earthquakes and volcanic eruptions and global connections between earthquakes, drifting continents, and volcanoes. Lectures only.
NOTE: Students in degree programmes in Geology may not take this course for Geology credits.

GEOL 208 ***The Earth, Moon and the Planets*** (3 credits)
The course emphasizes the cosmic perspective of the Earth and focuses attention on how the results of the last two decades of planetary exploration have brought about an intellectual revolution concerning the planets, especially their surface features, processes, and histories. Lectures only.
NOTE: Students in degree programmes in Geology may not take this course for Geology credits.

GEOL 210 ***Physical Geology*** (3 credits)
An elementary study of minerals and rocks, and of the internal and external processes which shape the Earth's surface. Laboratory work deals with identification of minerals, rocks, and fossils, as well as interpretation of topographic and geologic maps. Field trips to Mount Royal, Eastern Townships, and Laurentians. Lectures and laboratory.

GEOL 211 ***Mineralogy I*** (3 credits)
Physical and chemical properties of minerals. Crystallography, crystal notation, stereographic projection. Crystal structures. Identification, description, and classification of minerals. One or two field trips near Montréal. Lectures and laboratory.

GEOL 212 ***Invertebrate Palaeontology*** (3 credits)
Prerequisite: GEOL 210 or equivalent. A systematic survey of major invertebrate fossil groups, with chief emphasis on morphology, classification, and geologic occurrence. Study of principles of evolutionary concepts and zonation. Some selected discussion on paleoecology. Lectures and laboratory.

GEOL 213 ***Structural Geology I*** (3 credits)
Prerequisite: GEOL 210 or equivalent, previously or concurrently, or permission of the Department. Major structural features of the Earth; principles of rock deformation; primary structures in igneous and sedimentary rocks, and their significance. Classification and analysis of folds and fractures, study of secondary structures associated with folding. Laboratory deals with structural problems solved by orthographic and stereographic methods. Several field trips to selected outcrop areas, with reports. Lectures and laboratory.

GEOL 216 ***Field Methods*** (3 credits)
Prerequisite: GEOL 213; GEOL 231. Elements of surveying, construction of base maps. Geological field methods: description and recording of geological field data, construction of geological maps. Collection and presentation of field data in exploration geophysics and exploration geochemistry. One lecture per week in the Winter Session and two-week field school in the Spring, immediately after the final examinations.

GEOL 224 ***Introduction to Remote Sensing and Terrain Analysis*** (3 credits)
Prerequisite: GEOL 210 or GEOG 271; GEOL 213 recommended. An introduction to a variety of remote-sensing techniques including aerial photography, airborne magnetometer surveys, aerial thermography, side-looking aerial radar, and multispectral scanning imagery from satellites. Emphasis is placed on geological and geographical applications of terrain analysis. LANDSAT imagery, airphoto, stereopairs, and aeromagnetic maps are used in the laboratory for the analysis of a number of selected areas. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 215 may not take this course for credit.

GEOL 231 ***Physics of the Earth*** (3 credits)
Prerequisite: CEGEP Mathematics 103 or MATH 203; CEGEP Mathematics 203 or MATH 205; CEGEP Physics 301 or PHYS 206 and 226; GEOL 210 or equivalent. This course is directed towards the general understanding of physical phenomena of the solid Earth. Subjects for consideration include the following: Earth's origin, age, radioactivity, magnetism, gravity field, seismology, heat flow, structure and physical state of the Earth's interior. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 221 may not take this course for credit.

GEOL 232 ***Introduction to Geochemistry*** (3 credits)
Prerequisite: CEGEP Chemistry 201 or CHEM 206; CEGEP Physics 301 or PHYS 206 and 226; CEGEP Mathematics 103 or MATH 203;

CEGEP Mathematics 203 or MATH 205; GEOL 210. The course focuses on the application of concepts of elementary chemistry to geological problems. Subjects for consideration include: application of thermodynamics to geological problems, phase equilibria relationships in petrogenesis, partitioning of elements, crystal chemistry, distribution of elements, chemistry of natural waters including properties of water at high temperatures and pressures. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 223 may not take this course for credit.

GEOL 233 ***Introductory Hydrogeology*** (3 credits)
Prerequisite: GEOL 210; CHEM 206; MATH 205. This course is an introduction to the physical and geochemical aspects of hydrogeology, with emphasis on groundwater in its physical and geochemical aspects, influence on geotechnical engineering, and contamination. Lectures and laboratory.
NOTE: Students who have received credit for this topic under a GEOL 298 or 398 number may not take this course for credit.

GEOL 298 ***Selected Topics in Geology*** (3 credits)

GEOL 299 ***Selected Topics in Geology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

GEOL 311 ***Introductory Petrology*** (6 credits)
Prerequisite: GEOL 211. The identification and description of hand specimens of igneous, sedimentary, and metamorphic rocks. Rock associations. Classification and origin of major rock groups. Lectures and laboratory.

GEOL 313 ***Optical Crystallography*** (3 credits)
Prerequisite: GEOL 211. Behaviour of light in crystals. The optical indicatrix. The polarizing microscope and optical properties of minerals. Identification of non-opaque minerals in oil immersion and thin sections. If time permits, use of the Universal Stage will be introduced. Lectures and laboratory.

GEOL 314 ***Stratigraphy*** (3 credits)
Prerequisite: GEOL 212; GEOL 311 previously or concurrently. Introduction to historical developments of stratigraphic concepts. Role of natural dynamic processes in the evolution of stratigraphic record. Discussion on stratigraphic classification and nomenclature. Major classification of tectonic elements in sedimentary basins, and broad patterns in the distribution of sedimentary rocks in relation to tectonic framework. Detailed analysis of stratigraphic principles, such as correlation (lithostratigraphic, biostratigraphic, chronostratigraphic), facies (lithofacies, biofacies), unconformities, and cyclothem. Critical evaluation of stratigraphic sequences using modern and ancient examples for the recognition of aeolian, alluvial fan, fluvial, lacustrine tidal flats, barrier coastlines, carbonate shoreline, shallow marine and submarine environments. Lectures and laboratory.

GEOL 316 ***Field Geology*** (3 credits)
Prerequisite: GEOL 216; GEOL 311 or permission of the Department. Two-week fieldwork right after the final examination period. Working in groups, students map an area, prepare sections, and submit a geological map and/or written report. Group studies of important outcrops or outcrop areas and quarries. Transportation is provided by the Department but students must pay for board and lodging.
NOTE: Students taking this course in their final year may not be able to graduate in the spring of the same year.

GEOL 318 ***Structural Geology II*** (3 credits)
Prerequisite: GEOL 213. Concepts of strain and mechanics of deformation. Description of tectonic fabrics and analysis of folds; identification and interpretation of polyphase deformation. Regional structural associations and their evaluation. Laboratory includes field-oriented structural problems, drill holes, and regional structural analysis. Use of aerial photographs in the preparation of geological maps and sections. Several field trips and structural mapping of selected outcrops or outcrop areas. Lectures and laboratory.

GEOL 325 ***Geostatistics and Computer Applications in Geology*** (3 credits)
Prerequisite: GEOL 210; INTE 290 or COMP 201 or permission of the Department. This is an introductory course in the application of statistical methods to geological problems. Topics covered include sampling from geological populations, binomial, Poisson, normal and lognormal distribution; sampling distribution and applications; analysis of variance: simple linear regression, introduction to multivariate data analysis techniques; multiple regression, factor analysis, cluster analysis, and discriminant analysis. Lectures and laboratory.
NOTE See §200.7

GEOL 331 ***Historical Geology*** (3 credits)
Prerequisite: GEOL 212; GEOL 213; or permission of the Department. Fundamental concepts in historical geology; principles of stratigraphy, paleo-geography, and geochronology. A systematic review of the geological history of the Earth and development of life forms from the Precambrian to Recent. Geological evolution of classical areas with

special attention to the North American continent. Studies of stratigraphic sections and geological maps. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 310 may not take this course for credit.

GEOL 332 ***Economic Geology*** (3 credits)
Prerequisite: GEOL 311 previously or concurrently. The course deals with the genetic concepts leading to the formation of metallic and non-metallic mineral deposits, their classification, world distribution, and economic evaluation. Concepts related to zonation, metallogenic provinces, metallotects, and exploration and evaluation of mineral deposits are also dealt with. Laboratory includes examination and study of selected ore-suites from the most important mining camps, ore reserve calculations, core logging and economic feasibility studies of classical mineral deposits. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 317 may not take this course for credit.

GEOL 398 ***Selected Topics in Geology*** (3 credits)

GEOL 399 ***Selected Topics in Geology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

GEOL 411 ***Igneous and Metamorphic Petrology*** (6 credits)
Prerequisite: GEOL 311; GEOL 313. Interpretation of phase diagrams. Mineralogy, fabric, and petrogenesis of igneous and metamorphic rocks. Magmatic and metamorphic processes. ACF and AKF diagrams for various metamorphic facies. Study of selected problems. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 390 may claim only three credits for this course.

GEOL 413 ***Sedimentary Petrology*** (3 credits)
Prerequisite: GEOL 311; GEOL 313. General principles of sediment diagenesis, followed by detailed analysis of the diagenetic evolution of sandstone, shale, and carbonate rocks. Emphasis is placed heavily on the microscopic criteria in the recognition of diagenetic fabric. Problems of primary sedimentary structures and their hydro-dynamic interpretation are also discussed. Specialized topics on current development in sedimentary lithogenesis are also included. Lectures and laboratory.

GEOL 414 ***Undergraduate Research*** (6 credits)
Prerequisite: For third-year Honours students. Honours students in their final year are expected to show competence in isolating and examining a geological problem under the supervision of a faculty adviser. A written application to take the course, including a brief outline of the research project, must be made to the Department before April 15 of the second year. The application is reviewed by a committee and a decision forwarded by mail. The results of research must be presented in the form of an undergraduate thesis, two copies of which must be submitted by April 1.
NOTE: Written requests from Specialization students, with appropriate academic records, to take the course will be considered.

GEOL 415 ***Plate Tectonics and Crustal Evolution*** (3 credits)
Prerequisite: GEOL 213; GEOL 231; GEOL 311. Techniques of data collection in tectonics. Structure and rheology of the upper mantle. Tectonics of crustal types to include shields, platforms, passive continental margins, phanerozoic foldbelts, continental rifts, island-arc trench belts and oceanic rises, sea-floor spreading, plate tectonics, magma associations, and plate reconstructions. Crustal origin and growth. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 315 may not take this course for credit.

GEOL 417 ***Mineral Deposits*** (3 credits)
Prerequisite: GEOL 332; GEOL 411 previously or concurrently. The course deals with the study of ore deposits generated by magmatic segregation, contact metasomatic, hydrothermal, volcanogenic, sedimentary and supergene enrichment processes. Concepts of geothermometry, geobarometry, and stable isotopes are also dealt with. Examples of particular geological interest from the most representative mining districts of the world. Laboratory includes petrological examination of metallic suites, fluid inclusion, and Vickers microhardness tests. Lectures and laboratory.
NOTE: Students who have received credit for GEOL 416 may not take this course for credit.

GEOL 422 ***Exploration Geophysics*** (3 credits)
Prerequisite: GEOL 231 or permission of the Department. A brief study of the principles of magnetic, gravimetric, electric, and seismic methods of mineral exploration; interpretation of geophysical data; organization of exploration programmes; selected case histories. Lectures and laboratory.

GEOL 424 ***Engineering Geology*** (3 credits)
Prerequisite: GEOL 210 or equivalent; GEOL 213 and GEOL 224 recommended. Engineering properties of rocks and soils. Landslides, groundwater, frost action, and permanently frozen ground. Application of geology to engineering problems—concrete petrology, tunnels, slope control, foundations, roads, airports, dams, and reservoirs. One term paper to be prepared. The laboratory period includes field trips, engineering geology case

histories, and feasibility study of engineering geology problems. Lectures and laboratory.

GEOL 498 ***Advanced Topics in Geology*** (3 credits)

GEOL 499 ***Advanced Topics in Geology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.160 HISTORY

Faculty

Acting Chair
MARTIN SINGER, *Associate Professor*

Professors Emeritus
ALAN H. ADAMSON
EDWARD E. McCULLOUGH

Professors
FREDERICK BODE
RICHARD J. DIUBALDO
DONALD E. GINTER
WILLIAM H. HUBBARD
JOHN F. LAFFEY
RONALD RUDIN
STEPHEN J. SCHEINBERG
ROBERT TITTLER
MARY VIPOND

Adjunct Professor
GEOFFREY ADAMS

Associate Professors
CHARLES L. BERTRAND
GRAHAM CARR
FRANK R. CHALK
M. GRAEME DECARIE
CAROLYN FICK
JOHN L. HILL
NORMAN INGRAM
FREDERICK H. KRANTZ
MICHAEL MASON
ROSEMARIE SCHADE
FRANZISKA E. SHLOSSER
IRVING H. SMITH
WALTER VAN NUS

Adjunct Associate Professor
ROBERT T. COOLIDGE

Assistant Professors
SHANNON McSHEFFREY
DIANA PEDERSEN

Location

Loyola Campus
Vanier Extension, Room: VE 323
(514) 848-2430

Sir George Williams Campus
J.W. McConnell Building, Room: LB 601
(514) 848-2435

Department Objectives

It is the mission of the Department of History not only to train historians but to produce articulate and informed graduates who share its commitment to serving the broader community. The Department therefore encourages strength in both teaching and research, responsiveness to a wide range of intellectual perspectives, and involvement in community affairs.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in History
The following courses in an approved sequence constitute Honours in History. Students intending to enter the Honours programme are advised to consult with the Department.
6 HIST 201[3], 202[3] *(European)*
6 HIST 203[3], 205[3] *(Canadian)*
6 HIST 200 level *(Non-Western) or* HIST 251[3], 253[3] *(American)*
6 HIST 200- or 300-level courses (six or three credits)
6 HIST 397[6] *(required Honours seminar)*
12 HIST 300-level courses (six or three credits)
6 HIST 493[6] *(Honours Essay Tutorial)*
12 HIST 400-level courses (six credits) *or* - related course(s) in another department *with History Department approval.*

60 BA Specialization in History
6 HIST 201[3], 202[3] *(European)*
6 HIST 203[3], 205[3] *(Canadian)*
6 HIST 200 level *(Non-Western) or* HIST 251[3], 253[3] *(American)*
6 HIST 200-level courses (six or three credits)
24 HIST 300-level courses (six or three credits)
12 HIST 300- (six or three credits) or 400-level courses (six credits) *or* related course(s) in another department *with History Department approval.*

60 BA Joint Specialization in English and History
6 Genre, critical reading, and survey courses from ENGL 256[6], 257[3], 258[3], 271[3], 275[3], 277[3], 280[3], 281[6], 282[6], 284[6] (to be taken in the first 24 credits in the programme)
6 Periods before 1800 (British and European) from ENGL 312[6*]; 313[3*], 314[3*] through ENGL 335[3]; 430[6]
6 North American (Canadian and American) from ENGL 290[6], 293[3], 300[3], 301[3], 311[6], 365[3], 367[3], 369[3], 370[6], 371[3], 372[3], 375[6], 379[3]

6 19th Century and 20th Century (British and European) from ENGL 305[6], 306[6], 307[3], 308[3], 338[6], 339[3], 340[3], 342[6], 343[3], 344[3], 348[6], 352[3], 353[3], 355[3], 356[6], 357[3], 358[3], 366[3], 390[6], 392[6], 459[6]
6 ENGL elective credits from ENGL 224 to ENGL 499
6 HIST 201[3], 202[3]
6 HIST 203[3], 205[3], 251[3], or 253[3]
6 200-300 level Non-Western
3 300 level pre-1800 Canadian, American, British or European
3 300 level post-1800 Canadian, American, British or European
6 300-400 History electives

* *ENGL 312[6] - Students who have received credit for ENGL 310 may not take this course for credit.*
ENGL 313[3] - Students who have received credit for ENGL 310 or 312 may not take this course for credit.
ENGL 314[3] - Students who have received credit for ENGL 310 or 312 may not take this course for credit.

42 BA Major in History
6 HIST 201[3], 202[3] *(European)*
6 HIST 203[3], 205[3] *(Canadian)*
6 HIST 200 level *(Non-Western) or* HIST 251[3], 253[3] *(American)*
18 Chosen from any HIST 300-level courses (six or three credits)
6 Chosen from any HIST 300- (six or three credits) or 400-level courses (six credits)

42 BA Major in Southern Asia Studies
9 Required in first year: HIST 261[3], RELI 213[6]
3 Chosen from HIST 364[3], 365[3], 393[3], 461[6]
6 Chosen from RELI 313[6], 314[3], 315[3], 318[3], 320[3], 321[3], 325[3]
6 Chosen from POLI 340[3], 342[3], 431[3], 434[6]
NOTE: Any one of the above courses may be substituted a Special Topic course on Southern Asia in the same Department.
18 Chosen from any relevant courses in the core disciplines (not already counted towards the above requirements) or courses dealing with Southern Asia in the Departments of Economics, Education, English, Geography, Sociology/Anthropology or the Faculties of Fine Arts and Commerce and Administration

24 Minor in History
12 HIST 200-level *(Field Surveys),* HIST 201[3], 202[3] *(European) or* HIST 203[3], 205[3] *(Canadian) or (Non-Western) or* HIST 251[3], 253[3] *(American)*
6 HIST 200-level courses (six or three credits)
6 HIST 300-level courses (six or three credits)

30 Minor in Southern Asia Studies
9 Required: HIST 261[3]; RELI 213[6]
6 Chosen from HIST 364[3], 365[3], 393[3], 461[6]; POLI 340[3], 342[3], 431[3], 434[6]; ECON 311[3], 312[3], 341[6]
6 Chosen from RELI 313[6], 314[3], 315[3], 318[3], 319[6], 320[3], 321[3], 322[3], 323[3], 324[3], 325[3]; FMST 335[3]
9 Elective credits from any courses dealing primarily with Southern Asia, and Special Topics courses in any discipline with a Southern Asia theme or focus

30 Minor or Certificate in the History of Québec
This programme is designed to prepare teachers at both the Secondary and CEGEP levels to offer courses in the History of Québec. It also provides an outline of study for those who are generally interested in the topic of Québec History.
3 HIST 209[3]
3 HIST 210[3]
12 Chosen from HIST 307[3], 308[3], 313[3], 314[3] or from HIST 398[3], 399[6] (when the Department determines such courses to have adequate Québec content)
6 Chosen from HIST 411[6], 498[3], or 499[6] (when the Department determines such courses to have adequate Québec content)
6 Chosen from courses on Québec or French Canada offered by the Departments of Economics, Études françaises, Geography, Political Science or Sociology, or related courses approved by the Department.

Students may transfer into the Certificate programme up to 12 credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

N.B.:

(1) 300-level courses are generally open only to students who have successfully completed at least 12 credits of 200-level History courses (normally 201-202, European, and 203-205, Canadian). Aside from designated cross-listed offerings, qualified non-History students may be admitted to 300-level courses with the permission of the Department.

(2) 400-level seminars are normally open to Honours students or students of high academic standing or with the permission of the Department.

HIST 201 ***Introduction to European History to 1789*** (3 credits)
A survey of the history of Europe to the French Revolution, with emphasis on the development of ideas and political institutions.

HIST 202 ***Introduction to European History, from 1789 to the Present*** (3 credits)
A survey of the history of Europe from the French Revolution to the present, with emphasis on the development of ideas and political institutions.

HIST 203 ***History of Canada, Pre-Confederation*** (3 credits)
A survey of Canadian history, from settlement to Confederation, emphasizing readings and discussions on selected problems.

HIST 205 ***History of Canada, Post-Confederation*** (3 credits)
A survey of Canadian history from Confederation to the present, emphasizing readings and discussions on selected problems.

HIST 206 ***Introduction to the Non-Western World I*** (3 credits)
By giving an account of the worlds of Asia, Africa and the Americas between c. 1400 and c. 1900 we seek to show the interplay between local and international historical developments in the making of the global economy. In this course, we study both the largely autonomous developments of such centres of civilization as China and the Ottoman Empire, and the effects on the non-Western world of European expansion. The course ends with a discussion of the Age of Empire.

HIST 207 ***Introduction to the Non-Western World II*** (3 credits)
Continuing from HIST 206 (which is not a necessary prerequisite) this course is concerned with the period from the late nineteenth century up to the period of the Third World in the 1960s. It principally focuses on the objects and effects of colonialism, anti-colonial struggles, the emergence of the non-aligned bloc, and Western interventionism.

HIST 209 ***Québec to 1867*** (3 credits)
An introductory survey of the history of Québec from its origins as a colony to the creation of modern Canada by the British North American Act of 1867. Particular emphasis is placed on a consideration of those elements of Québec's past which best assist in the comprehension of the trends prevalent in modern Québec.

HIST 210 ***Québec since Confederation*** (3 credits)
A survey of the history of Québec from the time of Confederation until the present. While due emphasis is placed on political developments in the province, the purpose of the course is to acquaint the student with the significant economic and social trends in modern Québec.

HIST 211 ***Canadian Business History*** (3 credits)
This course looks at the forces influencing the history of Canadian business from the French régime to the present. The nature of business organization, the sources of capital, and the relationship between government and business are among the factors to be considered.
NOTE: Students who have received credit for HIST 316 may not take this course for credit.

HIST 215 ***History of Recreation and Leisure in Canada*** (3 credits)
A survey of the history of recreation and leisure from the time of European contact with native peoples to the present day. It is placed in the context of Canadian history to examine such phenomena as European and American influences on Canada, effects of urbanization, the roles of women in society, and the commercialization of leisure. Recreation and leisure are understood to include not only sports and games, but such activities as rural bees, education, drinking, gambling, and celebrations. The course also provides an introduction to the historical literature on recreation and leisure, and to the discipline of History.

HIST 219 ***(also given as CLAS 230) Ancient Near East*** (3 credits)
A survey of the political, social, economic, and intellectual history of the Ancient Near East, from the Neolithic age to the Indo-European invasions of the early second Millennium, with special emphasis placed upon the problem of the emergence of civilization in Mesopotamia, Egypt, and the Indus valley. Ancient sources utilized wherever possible.

HIST 223 ***(also given as CLAS 240) Introduction to Greek History*** (3 credits)
A political, social, economic, and cultural history of Greece from Minoan – Mycenaean times to the end of Classical Greek civilization in the

fourth century B.C., with special emphasis placed upon fifth-century Athens.

HIST 225 ***(also given as CLAS 242) History of Rome*** (3 credits)
A study of the various aspects of the history of Rome from the city's origins to the establishment of the Roman Empire under the Emperor Augustus. The main theme of this course is the growth of the city of Rome from an early settlement on the Tiber River to mistress of the Mediterranean world. The ideologies and institutions of Republican Rome are analysed in detail, and a study is made of the transitionary period that later on came to form the basis of the Roman Empire. The time-span with which this course is concerning itself is from 753 B.C. to 27 B.C.

HIST 251 ***History of the United States to 1877*** (3 credits)
Survey of American history from settlement to 1877. The course deals with the political and economic framework of American history, and with social and cultural trends.

HIST 253 ***History of the United States since 1877*** (3 credits)
Survey of American history from 1877 to the present. The course deals with the political and economic framework of American history, and with social and cultural trends.

HIST 261 ***History of India*** (3 credits)
An introduction to the intellectual traditions, social structures, and political institutions of South Asia, with particular attention to developments during the past two centuries.

HIST 262 ***History of China*** (3 credits)
A survey of China's history from earliest times to the modern era.

HIST 263 ***History of Japan*** (3 credits)
A survey of Japan's history from earliest times to the modern era.

HIST 264 ***History of Africa*** (3 credits)
An introductory survey of African history from the fifteenth century to the present. Particular emphasis is placed on pre-colonial Africa and the impact of colonialism on its political and economic patterns.
NOTE: Students who have received credit for HIST 270, or 271, or 272, or 278, or 279 may not take this course for credit.

HIST 281 ***History of the Cold War*** (3 credits)
This course examines the early signs of friction between the Great Powers during World War II and the diplomatic breakdown of relations after the common triumph over the Axis Powers. The course also examines the two different world views projected by the Super Powers and the long chain of events which led to near disaster in the Cuban Missile Crisis.

HIST 282 ***Arms Race and Arms Control*** (3 credits)
A survey of the nuclear arms race since the 1930s. This course places special emphasis on furnishing students with the knowledge to participate intelligently in contemporary nuclear debates. (This course has previously been offered as a 300-level slot course.)

HIST 298 ***Selected Topics in History*** (3 credits)

HIST 299 ***Selected Topics in History*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

HIST 300 ***British North America to the 1840s*** (3 credits)
Prerequisite: See N.B. number (1). An advanced study of British North America focusing on the social, economic, political, and cultural development of the colonies.

HIST 301 ***Canada from the 1840s to the 1890s*** (3 credits)
Prerequisite: See N.B. number (1). An advanced study of Canada in the period of its modernization. A blend of social, economic, political, and cultural approaches is taken.

HIST 305 ***Women in Canadian History*** (3 credits)
Prerequisite: See N.B. number (1). A survey of the position and roles of women in Canadian society from the seventeenth century to the present. Topics covered include women's work, the family and the pre-industrial and modern industrial economies; ideological constructions of feminity, motherhood, and sexuality; and the development of feminist and anti-feminist movements.

HIST 307 ***History of Montréal*** (3 credits)
Prerequisite: See N.B. number (1). A study of the origins of the city, its role in the Empire of the St. Lawrence, and its rise to metropolitan dominance in Canada. Special emphasis on economic development and on ethnic groupings.

HIST 308 ***History of English-Speaking Québec*** (3 credits)
Prerequisite: See N.B. number (1). An analysis of the experience of the different groups which have made up this community, from the Conquest to the present.

HIST 309 ***History of the Canadian North*** (3 credits)
Prerequisite: See N.B. number (1). An intensive study of the advance of the northern frontier of Canada, with emphasis on the period 1840-1945. The course stresses exploration, problems of sovereignty, conflict of cultures, and economic development.

HIST 310 ***Canada in the Early Twentieth Century, 1896–1929*** (3 credits)
Prerequisite: See N.B. number (1). An intensive study of early twentieth-century Canada concentrating on selected themes in economic, political, social, and cultural history.
NOTE: Students who have received credit for HIST 312 may not take this course for credit.

HIST 311 ***Contemporary Canada, 1930s to the Present*** (3 credits)
Prerequisite: See N.B. number (1). An intensive study of Canada since the 1930s concentrating on selected themes in economic, political, social, and cultural history.
NOTE: Students who have received credit for HIST 312 may not take this course for credit.

HIST 313 ***Québec in the Nineteenth Century*** (3 credits)
Prerequisite: See N.B. number (1). This course explores the major social, economic, and political issues that arose during the 1800s in the transformation of Québec from a pre-industrial to an industrial society.
NOTE: Students who have received credit for HIST 315 may not take this course for credit.

HIST 314 ***Québec in the Twentieth Century*** (3 credits)
Prerequisite: See N.B. number (1). This course explores the major social, economic, and political issues of twentieth-century Québec in the light of the concentration of economic power into relatively few hands early in the century and the declining importance of industrial production since World War II.
NOTE: Students who have received credit for HIST 315 may not take this course for credit.

HIST 317 ***Canada Views the United States*** (3 credits)
Prerequisite: See N.B. number (1). An examination of Canadian attitudes to the United States from 1776 to the present, with respect to both specific incidents and general trends. Emphasis is placed on the discussion of primary source material.

HIST 319 ***Literary History of Twentieth-Century Canada*** (3 credits)
Prerequisite: See N.B. number (1). An examination of some of the major themes of Canadian history in the twentieth century as seen by Canadian novelists, English and French. Themes studied include the struggle for survival; regional, ethnic, and religious plurality; and the response to urbanization and industrialization.

HIST 322 ***History of Medieval Europe*** (6 credits)
Prerequisite: See N.B. number (1). A study of European society from the fall of Rome to the end of the fourteenth century. The Medieval era is examined in terms of its typical institutions: the Holy Roman Empire; the Papacy; Feudalism; guilds and towns. Developments and changes leading to the formation of modern society are analysed.

HIST 323 ***(also given as CLAS 341) Greek History from Alexander to the Roman Conquest*** (3 credits)
Prerequisite: See N.B. number (1). A political, social, economic, and cultural history of the Greek World from Alexander the Great to the Roman conquest of Greece in 146 B.C.
NOTE: Students who have received credit for CLAS 241/HIST 224 may not take this course for credit.

HIST 324 ***History of Byzantium, 602–1453*** (6 credits)
Prerequisite: See N.B. number (1). A survey of the transformation from the Late Roman Empire into the Byzantine commonwealth, and changes in economic and social conditions. Special attention is given to the reorganization of administrative and military structures, the relationship between Byzantium and its Balkan neighbours, the Arab conquest, and the rising importance of Asia Minor.

HIST 325 ***Renaissance Europe*** (3 credits)
Prerequisite: See N.B. number (1). This course explores the transition from later Medieval to Renaissance Europe. Special attention is given to the nature, development, and influence of the Italian Renaissance. Attention is also given to social and political issues in early modern Europe.

HIST 326 ***Reformation and Counter-Reformation in Early Modern Europe*** (3 credits)
Prerequisite: See N.B. number (1). An examination of the European Reformation and Counter-Reformation. Beginning with the late medieval context, the course stresses the significance of the period for the development of Western thought and society.

HIST 327 ***(also given as CLAS 343) History of the Roman Empire*** (3 credits)
Prerequisite: See N.B. number (1). A political, social, economic, and cultural history of the Roman Empire from Augustus to the end of the Roman Empire in the West.
NOTE: Students who have received credit for CLAS 243/HIST 226 may not take this course for credit.

HIST 328 ***Social and Intellectual History of Early Modern Europe*** (6 credits)
Prerequisite: See N.B. number (1). A study of change and continuity in European society and culture, 1300-1650. Problems studied include feudal-capitalist relationships, the Italian

Renaissance, Northern State Development, Protestant Reformation, Scientific Revolution, and European Colonial expansion. Methodological issues are emphasized.

HIST 329 ***Women in Western History I*** (3 credits)
Prerequisite: See N.B. number (1). A survey of the position and roles of women in Western history from antiquity to the French Revolution. Themes analysed in the lectures and in discussions include: women's position in early law; the concept of courtly love; women in the French Revolution; the working woman in pre-industrial Europe.

HIST 331 ***Women in Western History II*** (3 credits)
Prerequisite: See N.B. number (1). A survey as above but covering the period from after the French Revolution to modern times. Themes analysed in the lecture and in discussions include: women in post-industrial Europe; the Suffrage Movement; the Feminist Movement in Europe and North America; women during the two World Wars; women in the modern work-force.

HIST 332 ***Social History of Costumes and Interiors I*** (3 credits)
Prerequisite: See N.B. number (1). A social history of European civilization as reflected by fashions in dress and interiors. Dress especially mirrors accurately a society's ideals in aesthetics and morals; interiors indicate lifestyles and social habits. Both costumes and interiors are treated in this course as an illustration of social history underscoring social change as from era to era. The course covers a time-span from the Middle Ages to the Renaissance, including a brief introduction to the classical period.

HIST 333 ***Social History of Costumes and Interiors II*** (3 credits)
Prerequisite: See N.B. number (1). Based on the same principles as HIST 332, this course covers a time-span from the Reformation to the Victorian Age.

HIST 334 ***Social and Intellectual History of Modern Europe*** (6 credits)
Prerequisite: See N.B. number (1). The intellectual systems arising in Europe since the seventeenth century are explored in the context of the economic and social circumstances which engendered them. This course begins with the rise of theories of "possessive individualism", and ends with the contemporary cultural crisis. While attention is paid to the general dynamics of culture, special attention is devoted to the social functions of particular ideologies.

HIST 335 ***Barbarian Invasions and the Birth of Europe*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the arrival and settlement of new populations in the Roman world. It analyses the changes that this event brought in its wake. Classical civilization was disrupted, but there was also a symbiosis of the old and the new, which in time gave rise to Europe in the Middle Ages.

HIST 336 ***Late Antiquity: Continuity and Change*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the similarities and contrasts between society in Late Antiquity and the new societies that arose based on Christianity, barbarian kingdoms, and the East Roman Empire. We pursue what Peter Brown has called *The World of Late Antiquity*, its culture, social patterns, political institutions, and economic conditions that interlock to form new and distinct societies in a world that had regarded itself for centuries as being "universal".

HIST 342 ***History of England Since 1460*** (6 credits)
Prerequisite: See N.B. number (1). A survey of the political, economic, and social development of England from the fifteenth to the twentieth century. Emphasis is placed on the evolution of governing institutions in the early period, on the economic and political changes of the eighteenth and nineteenth centuries, and on the growth of the social-service state.

HIST 343 ***Social and Economic History of Britain, 1500–1900*** (6 credits)
Prerequisite: See N.B. number (1). A study of the transition from a feudal to a modern industrial society. Attention is given to the leading features of industrial, agricultural, commercial, and financial change and their impact on the structure of society.

HIST 344 ***Tudor England*** (3 credits)
Prerequisite: See N.B. number (1). A detailed examination of the political, social, and economic aspects of England in the Tudor age, 1485-1603. Particular attention is paid to "The New Monarchy", the Henrician Reformation and its consequences, the "Mid-Tudor Crisis", tensions between local and national interests, Elizabethan government, economic change, Puritanism and Catholicism, and the problem of order.

HIST 345 ***Modern Germany in the Nineteenth and Twentieth Centuries*** (6 credits)
Prerequisite: See N.B. number (1). A study of the ideological and socio-economic development of Germany from the break-up of the Holy Roman Empire to the present.

HIST 346 ***Modern Austria From Empire to Republic*** (3 credits)
Prerequisite: See N.B. number (1). A study of German-speaking Austria from the establishment of the Austrian Empire in 1804 to the

present. Cultural trends are considered in addition to socio-economic and political developments.

HIST 347 ***History and the Public*** (6 credits)
Prerequisite: See N.B. number (1). An examination of the practice of history outside the academy and an introduction to the critical analysis of presentations of history in public culture and popular culture. Topics include public monuments, archives, and museums; corporate history and people's history; history, film, and television; historic preservation; and the professionalization of public history.

HIST 348 ***History of Ireland*** (3 credits)
Prerequisite: See N.B. number (1). A survey course that traces the history of Ireland from 432 A.D. to the present. Emphasis is on the nineteenth and twentieth centuries. Special attention is given to the development of Irish nationalism and relations with Great Britain. Irish music and literature is used to supplement the historical perspective.

HIST 353 ***United States to the 1740s*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the earliest period of American history. It gives special emphasis to the nature of Amerindian society, white-Amerindian contact, and the varieties of colonial settlement patterns.

HIST 354 ***United States from the 1740s to 1815*** (3 credits)
Prerequisite: See N.B. number (1). This course examines themes and issues in the revolutionary and early national periods of American history.

HIST 355 ***United States in the Nineteenth Century, 1815–1850*** (3 credits)
Prerequisite: See N.B. number (1). A study of American political, social, and economic life from the end of the War of 1812 to about 1850 – the intensification of sectionalism. Topics include geographic expansion and the beginnings of industrialization, the characteristics of southern slave society, and the rise of a system of political parties during the age of Jackson.

HIST 356 ***United States in the Nineteenth Century: The Era of the Civil War*** (3 credits)
Prerequisite: See N.B. number (1). A study of American political, social, and economic life before and after the Civil War, from about 1850 to 1890. Topics include sectionalism and the breakdown of parties during the 1850s, the tasks of Reconstruction after the war, the New South, and the problems of a maturing industrial society.

HIST 357 ***Foreign Relations of the United States to 1917*** (3 credits)
Prerequisite: See N.B. number (1). An analysis of United States foreign policy from the American Revolution to United States' entry into World War I, emphasizing the domestic debate over foreign policy and economic development, commercial and territorial expansion, and the dynamics of Canadian-American relations.

HIST 358 ***Foreign Relations of the United States, 1917 to the Present*** (3 credits)
Prerequisite: See N.B. number (1). A historical investigation of United States foreign policy from American intervention in the Russian Revolution to the present, emphasizing United States' responses to the challenge of revolutions in Asia and Africa. American conceptions of a new world order, the rise of the multinational corporation and its impact on Canadian-American relations.

HIST 361 ***Africa in the Nineteenth Century*** (3 credits)
Prerequisite: See N.B. number (1). The central focus of this course is the European assault on Africa and the unfolding of colonial economy and society. Some emphasis is placed on resistance to colonialism and the origins of nationalism.
NOTE: Students who have received credit for HIST 270, or 271, or 272, or 278, or 279 may not take this course for credit.

HIST 362 ***Traditional China*** (3 credits)
Prerequisite: See N.B. number (1). An examination of Chinese history from the beginning to the Ch'ing dynasty (c. 1800). Emphasis is placed on China's political, intellectual, and cultural heritage.

HIST 363 ***Africa in the Twentieth Century*** (3 credits)
Prerequisite: See N.B. number (1). This course deals with questions of nationalism and of the economic and social development of colonial and post-colonial Africa. There is particular focus on liberation and revolutionary movements.
NOTE: Students who have received credit for HIST 270, or 271, or 272, or 278, or 279 may not take this course for credit.

HIST 364 ***Imperialism and Nationalism: India*** (3 credits)
Prerequisite: See N.B. number (1). British conquest established nearly two centuries of colonial rule over the world's oldest civilization. This course examines the nature of imperial control, the resistance of traditional leaders, European intellectual imperialism, Indian cultural and religious revivalism, and modern nationalism. Special attention is paid to M.K. Gandhi and Gandhism as well as to Muslim separatism and the Pakistan movement.

HIST 365 ***Capitalism and Communism in South Asia*** (3 credits)
Prerequisite: See N.B. number (1). British India

was a vital part of a great commercial and industrial empire at the highest stage of capitalism. This course explores the economic and social impact of this period on Indian society up to the present. Imperial capitalism, the Indian entrepreneurial elites, peasants and famine, industrialization, the effects of two world wars, and the communist challenge since independence are investigated.

HIST 366 ***Nineteenth Century China*** (3 credits)
Prerequisite: See N.B. number (1). An intensive study of Chinese history between 1800 and the beginnings of the Chinese Revolution with emphasis on problems in political, social, and intellectual history.

HIST 367 ***Twentieth Century China*** (3 credits)
Prerequisite: See N.B. number (1). An intensive study of Chinese history since 1900 with emphasis on problems in political, social, and intellectual history.

HIST 368 ***(also given as SOCI 368) History and Sociology of Genocide*** (6 credits)
Prerequisite: See N.B. number (1). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that have led to it.

HIST 369 ***English Urban Community: From Feudalism to Industrialism, 1300–1700*** (3 credits)
Prerequisite: See N.B. number (1). Topics include: the elements of urban geography; emergence of the town from the countryside; the late Medieval urban crisis; the impact of the Reformation on English towns; urban demographic patterns; commercial and industrial structures; new towns; civic planning and building; social control in the urban community; the emergence of an urban cultural identity. Familiarity with English history, English literature, pre-industrial European history, or urban history is helpful but not essential.

HIST 371 ***History of Latin America: The Colonial Period*** (3 credits)
Prerequisite: See N.B. number (1). A survey of Latin America up to the wars of independence from Spain. The main themes examined are: pre-Columbian cultures; the Spanish conquest; patterns of colonial trade and economy; the role of the church; the Bourbon reforms.
NOTE: Students who have received credit for HIST 276 may not take this course for credit.

HIST 373 ***Africa and the Colonial Caribbean from Discovery to Slave Emancipation*** (3 credits)
Prerequisite: See N.B. number (1). The origins and development of West Indian settlement, the slave trade, and the plantation system are studied with a view to understanding simultaneously the exceptional social and economic structures which have defined West Indian history, the role of these structures in the development of European mercantilism, and the effects of mercantilism on Africa. This course covers the period from the European discovery of the new world in the late fifteenth century to the abolition of slavery in the mid-nineteenth century.

HIST 374 ***History of Latin America: The Modern Period*** (3 credits)
Prerequisite: See N.B. number (1). A survey of Latin American society in the nineteenth and twentieth centuries. The principal topics covered are: the social and economic roots of political instability; Mexico under Diaz; the Mexican Revolution; Argentina and Brazil under Peron and Vargas; U.S.-Latin American relations; Castro's Cuba; revolution and counter-revolution in contemporary Latin America.
NOTE: Students who have received credit for HIST 277 may not take this course for credit.

HIST 377 ***History of Russia*** (3 credits)
Prerequisite: See N.B. number (1). This course traces the origins of the medieval Russian state from the ninth century to the emergence of the Russian Empire. Emphasis is placed on political, social, and economic problems of the eighteenth and nineteenth centuries. Particular attention is devoted to the Revolutions of 1905 and 1917.

HIST 378 ***History of the Soviet Union*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the ideological roots of the Bolshevik Revolution, and traces the main economic, social, and political developments of the Soviet Union. In addition, an analysis of Soviet foreign policy is presented from 1917 to the present.

HIST 380 ***The History of the Colonial Caribbean: 1492 to the 1880s*** (6 credits)
Prerequisite: See N.B. number (1). The course covers the period from pre-Columbian contact to the end of slave emancipation in the Caribbean. Themes covered include the origins and development of the West Indian settlements; the plantation economies; the slave trade; the impact of these upon European economic growth and the impact of the French Revolution on the Atlantic world with emphasis on the Haitian Revolution. Abolition, alternative labour systems, and the rise of political movements complete the period covered.

HIST 381 ***Age of Absolutism 1640–1715*** (3 credits)
Prerequisite: See N.B. number (1). An examination of major developments in European society from the crisis of the mid-seventeenth century

to the end of the War of the Spanish Succession; the emergence of the modern state and of the European state system is emphasized.

HIST 382 ***Age of Enlightenment 1715–1789*** (3 credits)
Prerequisite: See N.B. number (1). An examination of major developments in European society from the death of Louis XIV to the French Revolution. Special attention is given to social and intellectual movements, more particularly to the rise of the bourgeoisie and to the key ideas of the Enlightenment.

HIST 383 ***Age of Revolution 1789–1848*** (3 credits)
Prerequisite: See N.B. number (1). A study of the dual Revolution — industrial and political — in England and France, and its initial consequences throughout Europe.

HIST 384 ***Age of Industrialization and Nationalism 1848–1914*** (3 credits)
Prerequisite: See N.B. number (1). A study of the transformation of European society, economy, and politics in the years between the upheavals of the mid-nineteenth century and the collapse of the traditional order in World War I.

HIST 385 ***Age of Dictators: Europe, 1914–1945*** (3 credits)
Prerequisite: See N.B. number (1). A study of the internal development and external relations of the nations of Europe from the Great War to the end of World War II. The course examines this chaotic age primarily through an investigation of the revolutionary and reactionary upheavals that kept Europe socially, politically, and economically unbalanced for 30 years.

HIST 386 ***Contemporary Europe: 1945 to the Present*** (3 credits)
Prerequisite: See N.B. number (1). A study of the internal development and external relations of the nations of Europe from the collapse of Nazi Germany to the present. The course concentrates on the divisions between East and West, the economic recovery of Europe and the effects of the energy crisis on social, economic, and political life throughout Europe.

HIST 387 ***Hanoverian England*** (6 credits)
Prerequisite: See N.B. number (1). A study of English social, political, and cultural history in the crucial period 1714-1837, from the end of the English Revolution to the accession of Queen Victoria.
NOTE: Students who have received credit for HIST 347 may not take this course for credit.

HIST 388 ***History of Modern Italy: 1848 to 1922*** (3 credits)
Prerequisite: See N.B. number (1). A survey of the crucial developments in Italian history from the Risorgimento to the rise of fascism. The course emphasizes the problems surrounding the creation of a united Italy. Specifically, the course examines the issues raised by nationalism, liberalism, Catholicism, and industrialization.

HIST 389 ***History of Modern Italy: 1922 to the Present*** (3 credits)
Prerequisite: See N.B. number (1). A survey of the crucial developments in Italian history from Mussolini's seizure of power to the present. The course examines the role and legacy of fascism, the creation of the republic, the economic miracle, the political and social turmoil, and the rise of terrorism.

HIST 390 ***France 1789–1871*** (3 credits)
Prerequisite: See N.B. number (1). A review of the central developments in French history from the Revolution to the Paris commune. Special attention is given to social and intellectual history. Novels such as Stendhal's *The Red and the Black* and Flaubert's *Sentimental Education* are used as background reading.

HIST 392 ***France 1871 to the Present*** (3 credits)
Prerequisite: See N.B. number (1). A review of French history from the Paris commune to the Fifth Republic. Special attention is given to social and intellectual history. Novels such as Zola's *Germinal* and Camus's *The Plague* are used as background reading.

HIST 393 ***Vietnam War*** (3 credits)
Prerequisite: See N.B. number (1). The protracted Vietnamese conflict in both its French (1940-54) and American (1955-75) phases is analysed using lectures, audio-visual materials, documents, and soldiers' accounts. Vietnam's historical evolution and colonial experience are briefly discussed as essential to understanding the war as a military, political, and cultural struggle.

HIST 394 ***The United States 1890–1920*** (3 credits)
Prerequisite: See N.B. number (1). This course includes the rise of the corporation and the trade unions. The Populist, Progressive, and Suffrage Movements are given major attention.
NOTE: Students who have received credit for HIST 320 may not take this course for credit.

HIST 395 ***The United States 1920–1945*** (3 credits)
Prerequisite: See N.B. number (1). A study of Post World War I America that extends through World War II. Political and social history are emphasized.
NOTE: Students who have received credit for HIST 320 or 321 may not take this course for credit.

HIST 396 ***The United States since 1945*** (3 credits)
Prerequisite: See N.B. number (1). The

immediate historical background of today's America is the subject matter of this course. Major themes include civil rights, the rise of modern feminism, and economic decline. *NOTE: Students who have received credit for HIST 321 may not take this course for credit.*

HIST 397 ***Honours Seminar*** (6 credits)
Prerequisite: Approved Honours standing in History and completion of HIST 201, 202, 203 and 205. The Honours Seminar has a two-fold purpose. It engages students in the advanced study of major exemplars of historical enquiry and method. It also ensures careful preparation for the Honours Essay Tutorial (HIST 493).

HIST 398 ***Selected Topics in History*** (3 credits)

HIST 399 ***Selected Topics in History*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

HIST 411 ***Advanced Study in Canadian History*** (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in the history of Canada. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor. Topics may be selected from such subjects as "Canadian Intellectual History", "The City in Canadian History", "Canada in the 1920's and 1930's", and "Canadian Social History".

HIST 426 ***Advanced Study in Late Classical and Medieval Europe*** (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in the history of late classical and medieval Europe. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 430 ***Advanced Study in Early Modern Europe*** (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in the history of early modern Europe. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor. Topics may be selected from such subjects as "Cultural Differentiation in Early Modern France and Germany" and "The Enlightenment".

HIST 436 ***Advanced Study in Modern Europe*** (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in the history of modern Europe. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor. Topics may be selected from such subjects as "Popular Protest in Nineteenth-Century Europe", "Revolutionary Tradition in Nineteenth-Century France", "Fascism", "Background of World War I", and "Nationalism and Industrialization in Central Europe".

HIST 438 ***Advanced Study in British History*** (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in the history of Great Britain. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor. Topics may be selected from such subjects as "Tudor England", "Stuart England", and "Structural Change in the English Countryside, 1500–1900".

HIST 441 ***Advanced Study in Russian and Soviet History*** (6 credits)
Prerequisite: Permission of the Department. This course deals with specific problems in Tsarist and Soviet Russia. In the Pre-Revolutionary period, attention is focused on the emancipation of the peasantry, industrialization, and the growth of the opposition parties. In the Soviet period, emphasis is placed on the problems of economic growth, the changing pattern of Soviet Marxism, and the nature of Soviet foreign policy.

HIST 451 ***Advanced Study in American History*** (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in the history of the United States. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 461 ***Advanced Study in Asian History*** (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in Asian history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 470 ***Advanced Study in African History*** (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in the history of Africa. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year.

HIST 476 ***Advanced Study in the Third World: Imperialism and Revolution*** (6 credits)
Prerequisite: Permission of the Department. A comparison of the techniques and effects of imperialism in Asia, Africa, and Latin America during the late nineteenth and twentieth centuries. Modern independence and revolutionary movements in these areas are examined from a comparative perspective.

HIST 478 ***Advanced Study in Women's History*** (6 credits)
Prerequisite: Permission of the Department. This course deals with select aspects of the history and historiography of European and North American women from 1789 to the present.

HIST 493 ***Honours Essay Tutorial*** (6 credits)
Prerequisite: HIST 397 previously or concurrently. This course is open only to Honours students in History. The student works with an individual faculty member in a particular area of history. Students are asked to produce a sustained piece of written work, not exceeding 40 pages in length, to be read by their adviser and at least one other member of the Department. Students enrolled in HIST 493 present their research to the HIST 493 colloquium.

HIST 498 ***Advanced Topics in History*** (3 credits)

HIST 499 ***Advanced Topics in History*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.170 INTERDISCIPLINARY STUDIES

Administrator
JUDITH WOODSWORTH

Programme Objectives

The Faculty of Arts and Science *Principles of Education* (§31.001) reinforce the value of broadening skills and experience beyond the boundaries of a single concentration. The Faculty of Arts and Science recognizes that specialized and intensive knowledge in a particular discipline or field is a necessary part of the development of an educated person.
Interdisciplinary studies involves students in a range of thought, from scientific to humanistic. Courses are designed to illuminate principles, methods, and skills that cross disciplinary boundaries. They are particularly intended for students whose programmes of study at the undergraduate level are constrained by the demands of the working environment or graduate school.

INDIVIDUAL STUDIES
Under the direction of M. Santateresa, Academic Adviser, Faculty of Arts and Science *(SGW Campus)*
Individually Structured Programmes (Specialization or Honours)

Admission

Opportunities are available in some departments and programmes to follow an Individually Structured Specialization or Honours programme. Students must apply to the Department that seems most relevant to the central aspect of their proposed programme. Students in general must have demonstrated in their previous academic endeavours that they are capable of good standing ("B" level), but in exceptional cases a student may be admitted provisionally on the recommendation of the departmental undergraduate coordinator.
Formal entry to the ISP may occur only after completion of preparatory courses such as are required in Mature Entry and Extended Credit programmes. Students wishing to follow an Honours programme must follow the Faculty procedures and regulations concerning admission to Honours programmes. (see Degree Requirements — Honours, §16.2.3 and 31.003.)

Academic Regulations

The programme will consist of not less than 60 credits. The courses chosen must be based on a departmental or programme core, usually the Major, but not less than 24 credits. Students will thus be required to complete necessary prerequisites, and general preparation courses such as Research Methods or Statistics, so that they could later follow a regular departmental programme if they so desire.
A Specialization student must maintain an average of "C+" in all Specialization courses for purposes of continuation in the programme from year to year, as well as for graduation. The minimum acceptable grade in any single Specialization course is "C-".
The programme of study must be worked out at the time of registration into the programme. Admission to the programme must be finalized before a student registers for the final 60 credits of the 90-credit portion of their degree. To allow for the non-availability of certain courses during certain sessions, allowable substitute courses must be listed in advance. Such substitution provisions will be necessary only in the case of specialized courses that are known not to be available on a session by session basis. The intention of this regulation is to assure that the programme does not become an *ad hoc* mixture of courses without clearly rationalized academic coherence.
Students must prepare a careful, not necessarily long, statement of their goals indicating the specific reasons for their programme choice. The rationale and the sequence of courses chosen must be approved by the departmental programme coordinator and the Vice Dean for Student Affairs.

Programmes

A Minor is a programme consisting of 24 or more credits (see §16.2 and 31.003). Students may choose either a Minor programme comprised of courses from a range of disciplines, or a Minor in a discipline other than their Honours, Specialization or Major programme. Interdisciplinary and disciplinary Minors are listed below.

Interdisciplinary Minors

Credits	Title	Cal. Sec.
30	Science and Human Affairs	31.300
30	Southern Asia Studies	31.160

30	Urban Studies		31.340
24	Lonergan Interdisciplinary Studies		31.530

Disciplinary Minors

Code	Credits	Title	Cal. Sec.
ANTH	30	Anthropology	31.310
BIOL	24	Biology	31.030
CHEM	24	Chemistry	31.050
CLAS	24	Classical Studies	31.060
	24	Classical Archaeology	31.060
ECON	30	Economics	31.080
EDUC	30	Education	31.090
	24	Adult Education	31.090
ENGL	24	English Language	31.100
	24	English Literature	31.100
	24	English Dramatic Literature	31.100
	30	Creative Writing	31.100
FRAN	24	Langue française	31.110
	24	Littératures de langue française	31.110
GEOG	30	Geography	31.130
GEOL	24	Geology (Students without strong background in science)	31.140
HIST	24	History	31.160
	30	History of Québec	31.160
JOUR	30	Journalism	31.180
MATH	24	Mathematics	31.200
	24	Mathematics for BA students	31.200
	24	Statistics	31.200
MODL	30	German	31.210
	30	Italian	31.210
	30	Spanish	31.210
	30	Linguistics	31.210
PHIL	24	Philosophy	31.220
PHYS	24	Physics	31.230
PSYC	30	Psychology	31.250
RELI	30	Judaic Studies	31.270
SOCI	30	Sociology	31.310
THEO	24	Theological Studies	31.330
WSDB	30	Women's Studies	31.560

Clusters

A cluster is a sequence of courses (15 to 18 credits) on a given theme. It provides multi-disciplinary and interdisciplinary course content. For 1996-97, the following Clusters are offered:

Credits	Cluster Name
18	Health and Lifestyle
18	Introduction to Life Sciences
18	Québec Studies
18	Spanish America
18	The Planet Earth: Studies in the Environment
15	Understanding Science

Course information on these Clusters is listed in the 1996-97 Undergraduate Class Schedule.

Colleges, Institutes and Schools

Students wishing to pursue interdisciplinary studies may also wish to consider offerings in the Liberal Arts College §31.520, Lonergan University College §31.530, School of Community and Public Affairs §31.540, Science College §31.550, or Simone de Beauvoir Institute §31.560 (also described in §31.500).

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

INTE 215 ***Ideas in Mathematics*** (3 credits) Mathematical ideas and techniques permeate Western civilization, but because mathematics operates at a high level of abstraction and uses an esoteric language, its contribution is not well understood. Avoiding mathematical technicalities as much as possible, this course attempts to demonstrate a few of the powerful

ideas that have animated the development of mathematics. Examples of mathematical thinking from various periods of mathematical history are examined and related to their scientific and social impact.
NOTE: This course is designed as a suitable elective for students following an undergraduate programme. It has no formal prerequisites and will not qualify students to enrol for any other mathematics course, and cannot be used to satisfy a mathematics requirement in any BA or BSc programme.
NOTE: Students who have received credit for MATH 215 may not take this course for credit.

INTE 223 ***Critical Thinking*** (3 credits)
This course is designed to help students to think more clearly and critically and to improve their ability to present, defend, and evaluate arguments. Sample topics may include the nature of definition, validity and truth, formal and informal fallacies.
NOTE: Students who have received credit for PHIL 223 may not take this course for credit.

INTE 229 ***Philosophy and Literature*** (6 credits)
This course focuses on the interaction of philosophy and literature in a selected period of history (for example, the ancient world; the Middle Ages and Renaissance; and the modern world), through readings and discussion of literature with a high thematic content and philosophical writings with important literary connections.
*NOTE: Students who have received a total of six credits for the set of courses consisting of INTE 230 or 231, **or** a total of six credits for the set of courses consisting of INTE 232 or 233, may complete the sequence by taking INTE 229 in the appropriate year (six credits).*

INTE 290 ***Introduction to Computer Usage*** (3 credits)
This course is intended for students who would not normally encounter computers in their programme of study. It is designed to introduce them to fundamental uses of computers in word processing, data management, and elementary programming, as a basis for more advanced applications within their disciplines. This is accomplished by means of a series of tutorial packages combining printed text, videotapes, and software. The format is self-instructional, encompassing 40 hours of hands-on experience in the laboratory.
NOTE: Students who have received credit for general computer courses may not take this course for credit.

INTE 291 ***Advanced Computer Usage*** (3 credits)
Prerequisite: INTE 290 or equivalent. This course introduces advanced uses of computer packages, including mail merge, electronic mail, file management, data communications. The format is self-instructional, using computer-based tutorial packages, videotapes, and text. A minimum of 40 hours of laboratory work is required.

INTE 292 ***Computer Usage in the Sciences I*** (3 credits)
This course introduces the use of contemporary computing tools, (currently BASIC) in scientific applications. It is designed for students with some familiarity with the fundamentals of computing, who wish to use computers as tools for research within other disciplines (e.g. psychology, biology, mathematics). The format is largely self-instructional, using computer-based tutorial packages. A minimum of 40 hours of laboratory work is required.

INTE 293 ***Computer Usage in the Sciences II*** (3 credits)
This course introduces the use of contemporary computer tools (currently PASCAL) in scientific applications. It is designed for students with some familiarity with the fundamentals of computing, who wish to use computers as tools for research within other disciplines (e.g. psychology, biology, mathematics). The format is largely self-instructional, using computer-based tutorial packages. A minimum of 40 hours of laboratory work is required.

INTE 298 ***Special Topics*** (3 credits)

INTE 299 ***Special Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

INTE 398 ***Special Topics*** (3 credits)

INTE 399 ***Special Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

INTE 440 ***The Interdisciplinary Experience*** (3 credits)
This course is cross-listed with LUCC 440.
This course engages students in the task of integrating their university discipline into the more general enterprise of human knowing and deciding, and attempts to objectify this experience with the aid of a basic study of Lonergan's integrative methodology. The texts are selected from the works of Bernard Lonergan and other comparable theorists.
NOTE: Students who have received credit for INTE 400 or LUCC 400 may not take this course for credit.

INTE 498 ***Special Topics*** (3 credits)

INTE 499 ***Special Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.180 JOURNALISM

Faculty

Director
ENN RAUDSEPP, *Associate Professor*

Associate Professor and Diploma Programme Director
LINDSAY CRYSLER

Associate Professor
ROSS PERIGOE

Sessional Lecturers
SHEILA ARNOPOULOS, *Writer and Freelance Journalist*
BOB McDEVITT, *Freelance Broadcaster*

Sessional Instructors
JAY BRYAN, *Business Writer, The Gazette*
PETER COONEY, *Senior News Editor, The Gazette*
ABBY CURKEET, *Freelance Journalist*
MICHAEL GASHER, *Freelance Journalist*
LEWIS HARRIS, *Reporter, The Gazette*
LINDA KAY, *Columnist, The Gazette*
ROD MACDONELL, *Investigative Reporter, The Gazette*
JAMES STEWART, *Writer and Columnist*
BRENDA ZOSKY-PROULX, *Writer and Freelance Journalist*

Location

Loyola Campus
Bryan Building, Room: BR 305-4
(514) 848-2465

Department Objectives

Journalism studies are designed to help students become the intelligent and versatile reporters and writers upon which society depends for the exercise of its democratic functions. Above all, journalism is an intellectual activity with rigorous standards for gathering, processing, and disseminating information. To help students become knowledgeable and versatile reporters and writers, the Department of Journalism offers a professional education that combines theory and practice. Writing and production workshops emphasize the practical, simulating as much as possible the assignments of working journalists. Newsroom standards are universally applied. Complementing these courses are lectures and seminars which analyse the social and political contexts in which journalism is practised.

Admission and Graduation Requirements

Enrolment in the writing workshops in the Department of Journalism is limited and depends on the applicants' successful completion of the admission procedures outlined in the following paragraphs. All applicants should apply through the Office of the Registrar. In addition, they must submit a letter of intent and transcript to the Department of Journalism by March 1.
Admission procedures include: a letter of application of about 300 words describing the student's academic and work background and aspirations in journalism; a test of English proficiency; and an interview. Although it will not determine acceptance, applicants are advised that a working knowledge of French is important.
A student must achieve a final mark of "C" or better in the reporting workshops in order to proceed to the next level.
To graduate with a Minor, Major, or Specialization in Journalism, a student must demonstrate a working knowledge of French. Tests of oral and reading proficiency in French are administered by the Département d'études françaises on behalf of the Department of Journalism, which is responsible for the final evaluation of each student's competence.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
These programmes are designed to prepare graduates for the English-language media.

60 BA Specialization in Broadcast Journalism
NOTE: Students must meet the admission requirements of both the Departments of Communication Studies and Journalism.

Stage I
15 JOUR 201[6]; COMS 240[3], 278[3], 284[3]
3 Chosen from JOUR 205[3], 210[3], 215[3]

Stages II
12 JOUR 302[3], 306[3], 310[3], 343[3]
6 Chosen from COMS 378[6], 381[6], 387[6]

Stage III
6 JOUR 415[3], 446[3]
3 Chosen from JOUR 420[3], 430[3]
15 Chosen from Communication Clusters III, IV, and V at the 300 or 400 level.

60 BA Specialization in Journalism and Communication

NOTE: Students must meet the admission requirements of both the Departments of Communication Studies and Journalism.

Stage I

9 JOUR 201[6]; COMS 240[3]
6 Chosen from COMS 275[3], 278[3], 284[3]

Stages II & III

9 JOUR 302[3], 303[3], 310[3]
6 JOUR 400[3], 446[3]
3 Chosen from JOUR 402[3], 404[3], 408[3], 415[3], 430[3]
6 Other Journalism credits—these may not be laboratory/workshop courses
21 Chosen from Communication Clusters I, III, IV, V, with a maximum of six credits from Cluster I at the 300 or 400 level.

42 BA Major in Journalism

9 JOUR 201[6], 205[3]
12 JOUR 302[3], 303[3], 306[3], 310[3]
9 JOUR 400[3], 410[3], 446[3]
3 JOUR 402[3], 404[3], 408[3], 415[3], 430[3]
9 From COMS 360[3], or any non-workshop Journalism course.

30 Minor in Journalism

9 JOUR 201[6], 205[3]
9 JOUR 302[3], 303[3], 310[3]
9 JOUR 400[3], 410[3], 446[3]
3 JOUR 402[3], 404[3], 408[3]

Courses

Written work in writing and reporting workshop courses is in English; please consult the Department.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

JOUR 201 ***Writing and Reporting I*** (6 credits)
Prerequisite: Enrolment in a Journalism programme. This course gives training in basic reporting and news writing. Students practise writing news and receive out-of-classroom assignments.

JOUR 205 ***History of Journalism*** (3 credits)
A history of the news media in the English-speaking world, starting with the government gazettes of seventeenth-century England and their illegal, underground competition, through the "news" papers of the eighteenth century, the rise of the yellow press, the human interest story, the penny press in the nineteenth century, down to today's corporate press. The course is designed to show that our expectations of the news media are not inherent in human nature, but are the result of historical processes that continue to evolve.

JOUR 210 ***The Media in Québec*** (3 credits)
This course studies the special characteristics of Québec media, focusing particularly on the historical development of Québec journalism and the part it has played in the shaping of modern Québec. Particular attention is given to the influence of journalists in cultural and political affairs. The recent increasing concentration of media ownership is examined. Much of the reading material is in French.
NOTE: Students who have received credit for JOUR 305 may not take this course for credit.

JOUR 215 ***Contemporary News Media*** (3 credits)
This course introduces students to the increasingly complex structures of modern media. It examines the organizations, practices, and problems of news media, focusing on key functions in their day-to-day activities. In any given year, it may explore in detail a particular development or problem in the news media.

JOUR 298 ***Special Topics in Journalism*** (3 credits)

JOUR 299 ***Special Topics in Journalism*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

JOUR 302 ***Reporting Methods*** (3 credits)
Prerequisite: JOUR 201. This course builds solid foundations for a variety of journalistic assignments: feature writing, background and in-depth reporting, analyses, and investigative reporting. It is designed to help students understand and master a variety of information-gathering techniques, and overcome some of the hurdles confronting the contemporary journalist. It covers: information sources, interpretation and use of documents, access to information, and reporting and interviewing techniques to supplement official and conventional information sources.

JOUR 303 ***Feature Writing*** (3 credits)
Prerequisite: JOUR 302. This course is designed to help students develop and enhance their writing abilities, preparing for the broadest range of journalistic feature writing, from brief colour stories and profiles to in-depth articles. It consolidates interviewing techniques and introduces a variety of writing approaches. Students will be building the final foundations

for a full spectrum of print-oriented writing assignments, preparing for advanced reporting work and the demands of specialized journalism.

JOUR 306 ***Radio News*** (3 credits)
Prerequisite: JOUR 302. Students learn to write for newscasts and for longer broadcast formats. There are field assignments in interviewing, tape editing, and preparation for broadcast.

JOUR 310 ***The Press and the Law*** (3 credits)
Prerequisite: JOUR 201, or permission of the director. Lectures cover those aspects of criminal and civil law which bear most directly on the work of professional journalists — libel, slander, contempt of court.
NOTE: Students who have received credit for JOUR 405 may not take this course for credit.

JOUR 343 ***Broadcast Public Affairs*** (3 credits)
Prerequisite: JOUR 201, or permission of the director. This course focuses on the principles, practices, and debates in Canadian public affairs radio and television. American broadcasting is also considered. The course also examines current affairs broadcasting in the world community.
NOTE: Students who have received credit for COMS 340, 342 or 343 may not take this course for credit.

JOUR 398 ***Special Topics in Journalism*** (3 credits)

JOUR 399 ***Special Topics in Journalism*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

JOUR 400 ***Advanced Reporting*** (3 credits)
Prerequisite: JOUR 303. Students are introduced to several areas of specialist reporting — economics and business, public affairs, medicine and science, the arts, etc. — and to a variety of journalistic treatments: background, interpretive, and investigative reporting.
NOTE: Students who have received credit for JOUR 401 may not take this course for credit.

JOUR 402 ***Specialist Reporting*** (3 credits)
Prerequisite: JOUR 400. Students cover a beat in the field of their choice for several weeks, producing news, features, and background stories. A term-end major background story is also produced. There are seminars and discussions, with leaders from the media on the specifics of beat coverage and on general media topics, such as trade unionism, ethics, journalistic responsibility.

JOUR 404 ***Magazine Writing*** (3 credits)
Prerequisite: JOUR 400 and a qualifying assignment. This is a workshop for students who intend to write in the burgeoning magazine field. Students develop and apply the techniques used in a variety of magazine formats, from the highly specialized to the general: news magazines, special interest, topical or industrial publications, expansive feature formats, and internal corporate publications. It is of particular interest to students wishing a freelance career.

JOUR 408 ***Advanced Publication Workshop*** (3 credits)
Prerequisite: JOUR 303, training or experience in computer-assisted layout and design; a qualifying assignment. Selected students experiment, under supervision, with concepts and practical applications of computerized print media layout and design at an advanced level while creating publications in a variety of formats to showcase the journalistic, academic, and creative work of students in the Department.
NOTE: Students who have received credit for JOUR 498H may not take this course for credit.

JOUR 410 ***Principles of Editing*** (3 credits)
Prerequisite: JOUR 302. Lectures and workshops in the art of story editing, with a survey of new techniques in newspaper layout and design. While the material used is designed primarily for print reproduction, the techniques, and particularly the intellectual processes employed, are applicable to all media.

JOUR 415 ***Television News*** (3 credits)
Prerequisite: JOUR 306. The study of and practice in the application of news writing and editing for television. Classes and field assignments cover writing, interviewing, and editing of videotape for short television newscast items and for longer news feature formats.

JOUR 420 ***Advanced Television Journalism*** (3 credits)
Prerequisite: JOUR 415 and permission of the Department. An advanced workshop in television journalism, working in the areas of news and current affairs programming. Emphasis on editorial control and journalistic treatment of subjects. Weekly critiques by professor and invited guests.

JOUR 430 ***Advanced Radio Journalism*** (3 credits)
Prerequisite: JOUR 306 and permission of the Department. Workshop production of daily news on the student radio station. Students function as reporter, assignment editor, and news reader. Weekly critiques by instructor and invited radio journalists.

JOUR 440 ***Seminar in Modern Journalism*** (3 credits)
Prerequisite: Third-year standing in a

Journalism programme. This course takes an intensive look at selected aspects of modern journalistic practice. The focus for this course may change from year to year.

JOUR 442 ***Seminar in International Journalism*** (3 credits)
Prerequisite: Third-year standing in a Journalism programme. This course examines journalism and news media practices around the world. The focus of the course may change from year to year, to study in depth a selected country, or tradition.

JOUR 446 ***Ethics and Responsibility in Journalism*** (3 credits)
Prerequisite: JOUR 310, or permission of the director. This course considers journalism in the context of philosophical and ethical principles. It aims to assess realistically the responsibilities of reporting and news analysis and to examine critically the role of journalism in society.
NOTE: Students who have received credit for COMS 446 may not take this course for credit.

JOUR 450 ***Independent Study*** (3 credits)
Prerequisite: Enrolment in a Journalism programme. Students who have demonstrated ability may, near the end of their programme, be allowed to undertake independent study, in either research or production, in an area of special interest in Journalism. The study or project is done in close collaboration with one or more members of the faculty.

JOUR 451 ***Independent Study*** (3 credits)
Prerequisite: Enrolment in a Journalism programme. Students who have received credit for JOUR 450 may register for JOUR 451.

JOUR 498 ***Advanced Special Topics in Journalism*** (3 credits)

JOUR 499 ***Advanced Special Topics in Journalism*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.185 LEISURE STUDIES

Director
DENNIS DICKS, *Associate Professor*

Associate Professors
NATHALY GAGNON
RANDY B. SWEDBURG

Assistant Professor
LISA OSTIGUY

Location

Loyola Campus
7141 Sherbrooke St. W., Room: HB 131
(514) 848-3330

Department Objectives

Leisure Studies offers an interdisciplinary programme focusing on the growing awareness of leisure as a social and cultural force in society. Students are introduced to the many aspects of the field including managing, programming, counselling, and coordinating.
Involvement in community service provides an important link between the University and members of the community, thereby offering a genuine context for the exchange of knowledge and expertise.
The Leisure Studies programme is committed to equality in gender relations, living in harmony with the environment, and respect for diversity.

Programmes

There are three programmes within Leisure Studies. They are:
a) BA, Specialization in Leisure Studies: consisting of 60 credits in Leisure Studies and 30 elective credits.
b) BA, Specialization in Therapeutic Recreation: consisting of 60 credits in Therapeutic Recreation and 30 elective credits.
c) BA, Major in Leisure Studies: consisting of 42 credits in Leisure Studies and 48 elective credits.
Recreation and leisure are studied from a multi-dimensional perspective for those students interested in a career in leisure services, together with those students who foresee the increasing need for academic inquiry into the field.
The programmes draw from the Departments of Applied Social Science, Biology, Études françaises, Exercise Science, Geography, History, Philosophy, Psychology, Sociology and the Faculties of Commerce and Administration, and Fine Arts.
The Therapeutic Recreation Specialization is designed to highlight the developing role of specialists in this field. The application of recreation as a specific intervention to promote independent functioning and positive leisure experiences is studied in a variety of clinical and community settings.

Requirements

Students are required to complete the appropriate entrance profile (10.1) for entry into the programme (see §31.002 — Programmes and Admission Requirements — Profiles).
All required and elected courses within the programme should be chosen in consultation with an adviser.
Additionally, it will be required that students must maintain an overall average of 2.00 in order to (1) continue into the second and third years of their studies, and (2) graduate.
Students registered in the programme who are not fluent in French are strongly advised to use some of their elective credits in pursuit of French-language competence.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

Students should consult with the programme adviser prior to registering for Leisure Studies courses.

60 BA Specialization in Leisure Studies

33 LESR 241[3], 261[3], 371[3], 427[3], 431[3], 464[6]; HIST 215[3]; PHIL 255[3]; PSYC 286[3]; SOCI 244[3]*

6 Chosen from either SOCI 310[6]* or PSYC 310[3] and PSYC 315[3]

21 Chosen from either List X or Y

LIST X
ECON 201[3], 203[3]
MANA 266[3], 340[3]
MARK 213[3], 350[3]
ACCO 213[3], 218[3]
FINA 214[3], 315[3]

LIST Y
APSS 240[6]
ART 200[6]
ARTE 203[3]
EXCI 270[6], 455[3]
FRAN 311[3]
GEOG 352[3], 353[3]
LESR 210[3], 211[3], 281[3], 298[3**], 299[6**], 336[3], 340[3], 350[3], 360[3], 361[3], 398[3**], 399[6**], 420[3], 428[3], 450[3], 490[3**], 491[3**], 498[3**], 499[6**]

**NOTE: To enter SOCI 310 a student must have obtained credit for SOCI 203 or equivalent; to enter SOCI 244 a student must have obtained credit for SOCI 203 or 220.*
***NOTE: In fulfilment of programme requirements students are allowed a maximum total of six credits from these courses.*

60 BA Specialization in Therapeutic Recreation

I. Leisure Studies
27 LESR 241[3], 261[3], 427[3], 464[6]; HIST 215[3]; PHIL 255[3]; PSYC 286[3]; SOCI 244[3*]

II.
6 Chosen from either SOCI 310[6*] or PSYC 310[3] and 315[3]

III. Therapeutic Recreation
27 LESR 281[3], 350[3], 381[3], 432[3], 450[3], 481[3], 485[3]; BIOL 200[6]

**NOTE: To enter SOCI 310 a student must have obtained credit for SOCI 203 or equivalent; to enter SOCI 244 a student must have obtained credit for SOCI 203 or 220.*

42 BA Major in Leisure Studies
24 LESR 241[3], 261[3], 427[3], 431[3]; HIST 215[3]; PHIL 255[3]; PSYC 286[3]; SOCI 244[3*]
18 Chosen from either List X or Y

LIST X
ECON 201[3], 203[3]
MANA 266[3], 340[3]
MARK 213[3], 350[3]
ACCO 213[3], 218[3]
FINA 214[3], 315[3]

LIST Y
APSS 240[6]
ART 200[6]
ARTE 203[3]
EXCI 270[6], 455[3]
FRAN 311[3]
GEOG 352[3], 353[3]
LESR 210[3], 211[3], 281[3], 298[3**], 299[6**], 336[3], 340[3], 350[3], 360[3], 361[3], 371[3], 398[3**], 399[6**], 420[3], 428[3], 450[3], 464[6], 490[3**], 491[3**], 498[3**], 499[6**]

**NOTE: To enter SOCI 244 a student must have obtained credit for SOCI 203 or 220.*
***NOTE: In fulfilment of programme requirements students are allowed a maximum total of six credits from these courses.*

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

LESR 210 ***Tourism in Canada*** (3 credits)
An examination of the concepts, research, and practices of tourism in Canada. Topics covered include destination motivation, commercial recreation, business travel, traditional tourism, history of Canadian tourism, trends in tourism development, and government agencies (Tourism Canada; Tourisme Québec).
NOTE: Students who have received credit for this topic under a LESR 298 or 398 number may not take this course for credit.

LESR 211 ***Tourism Promotion*** (3 credits)
An examination of the principles of leisure promotion as applied to the tourism industry. Topics covered include the economics of promotion, social objectives, market segmentation, ethical and legal considerations, foreign and domestic promotion, and business vs. recreational advertising.
NOTE: Students who have received credit for this topic under a LESR 398 number may not take this course for credit.

LESR 241 ***Recreation and Leisure in Contemporary Society*** (3 credits)
The course provides a basis for understanding recreation and leisure as increasingly important aspects of our culture. In an era of rapidly changing lifestyles, with a high incidence of anxiety and frustration, the value of worthy use of free time in maintaining mental and physical health is presented. Topics discussed include: motivations for participation in leisure and recreation; social, psychological, and historical foundations of leisure; education for leisure; and the analysis of special problems.

LESR 261 ***Principles of Leisure Services*** (3 credits)
The fundamental concepts of programming in the field of leisure studies are the focus of this course. Analysis of planning models in social, cultural, physical, intellectual, and adventure recreation, as they relate to the provision of leisure services is the basis of study. Lectures and field study.
NOTE: Students who have received credit for LESR 250 may not take this course for credit.

LESR 281 ***Introduction to Therapeutic Recreation*** (3 credits)
An examination of the fundamental concepts of therapeutic recreation. Included is the study of the historical foundations and the basic terminology, purposes, and theories of therapeutic recreation.
NOTE: Students who have received credit for LESR 393 may not take this course for credit.

LESR 298 ***Selected Topics in Leisure Studies*** (3 credits)

LESR 299 ***Selected Topics in Leisure Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LESR 336 ***Leisure and the Older Adult*** (3 credits)
An examination of the unique features of leisure programming and services for older adults with special attention to cultural, intellectual, social, physical, and volunteer recreation.
NOTE: Students who have received credit for this topic under a LESR 398 number may not take this course for credit.

LESR 340 ***Employee Recreation Services*** (3 credits)
Examination of the origins and development of recreation related to the place of employment. Critical analysis of the research literature in the areas of: work/leisure relationships; cost/benefits; government intervention; programme design and family involvement.

LESR 350 ***Leisure Education*** (3 credits)
An introduction to the field of leisure education. The history and underlying philosophy of the concept is presented. The roles of the school, community, and community-serving agencies are examined. Existing models are analysed and discussed.

LESR 360 ***Play, Adult Learning and Development*** (3 credits)
This course examines the concept of play in adult learning and development. Gender, age, ethnic and social class diversity are explored as they relate to adult play behaviour.
NOTE: Students who have received credit for this topic under a LESR 398 number may not take this course for credit.

LESR 361 ***Leisure Services Leadership*** (3 credits)
An analysis of leadership theory and its application to leisure services. Major topics are the principles and practices of leadership, group dynamics, leadership skill development, and programme planning.
NOTE: Students who have received credit for this topic under a LESR 398 number may not take this course for credit.

LESR 371 ***Concepts in Community Recreation Programming*** (3 credits)
Prerequisite: LESR 261. A comprehensive analysis of current community recreation practices with emphasis on community leisure needs, assessments, cultural programming, leadership, volunteers, evaluation, and resource integration.
NOTE: Students who have received credit for LESR 250 may not take this course for credit.

LESR 381 ***Concepts in Therapeutic Recreation Programming*** (3 credits)
Prerequisite: LESR 261, LESR 281. A comprehensive analysis of current therapeutic recreation practices with emphasis on rehabilitation in community and clinical settings such as hospitals, group homes, psychiatric centres, rehabilitation clinics, and correctional centres. Leisure planning and assessment models are studied to identify the modes of recreational activity which may be used as an intervention.

LESR 398 ***Intermediate Selected Topics in Leisure Studies*** (3 credits)

LESR 399 ***Intermediate Selected Topics in Leisure Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LESR 420 ***The Legal Aspects of Leisure Services*** (3 credits)
Analysis of the law as it applies to aspects of recreational activities in such areas as organization, promotion, supervision, and participation. Included are studies of the Québec Civil Code, the Canadian Constitution, and the Commission des droits de la personne du Québec.
NOTE: Students who have received credit for this topic under a LESR 398 number may not take this course for credit.

LESR 427 ***Administration of Leisure Services*** (3 credits)
Prerequisite: Enrolment in the final year* of a Leisure Studies programme or permission of programme director. Analysis of the processes involved in planning and managing leisure service delivery systems. Topics to be studied include principles of planning, organization, budgeting, and supervision.
**30 credits or less remaining in degree programme*
NOTE: Students who have received credit for LESR 426 may not take this course for credit.

LESR 428 ***Structures of Leisure in Québec*** (3 credits)
An analysis of the administration of recreational activities in provincial, regional, and municipal governments. The relationships of these bodies to the federal government, private non-profit, and commercial recreation agencies are studied.
NOTE: Students who have received credit for this topic under a LESR 498 number may not take this course for credit.

LESR 431 ***Leisure Studies Seminar*** (3 credits)
Prerequisite: Enrolment in the final year* of a Leisure Studies programme. This is a third-year interdisciplinary seminar in which students can tie together all they have learned in the Leisure Studies programme. Additionally, students are set on a course of study that should continue after they graduate so that they can keep up with future developments in this area.
**30 credits or less remaining in programme*
NOTE: Students who have received credit for INTE 430/LESR 430 may not take this course for credit.

LESR 432 ***Seminar in Therapeutic Recreation*** (3 credits)
Prerequisite: Enrolment in the final year* of Specialization in Therapeutic Recreation. A third-year integrative seminar which allows students to consolidate all they have learned in their studies. Students will critically evaluate current issues in the field and commence a course of study that should continue after graduation, allowing them to keep up with future developments in therapeutic recreation.
**30 credits or less remaining in programme*

LESR 450 ***Leisure Counselling*** (3 credits)
Prerequisite: Enrolment in second year* of a Leisure Studies programme or permission of programme director. The application of counselling theory to the field of leisure services is considered in this course. The aims, methods, concepts, and assessment tools are the focus of study. Lectures and laboratory.
**60 credits or less remaining in programme*

LESR 464 ***Leisure Studies Internship*** (6 credits)
Prerequisite: Enrolment in the final year* of a Leisure Studies programme. In consultation with their mentors, students are given the opportunity to study theoretical and practical problems confronting professionals in the field of recreation. The course offers a supervised period of work with a selected organization. Each student, during seminar sessions, formulates a study proposal. The internship commences when the proposal has been approved. The internship involves a minimum six-week 240-hour period.
**30 credits or less remaining in programme*

LESR 481 ***Therapeutic Recreation and Special Populations*** (3 credits)
Prerequisite: LESR 281. An overview of the services required for individuals with special needs. Analysis of the barriers to recreational participation along with the planning/designing of a safe and accessible recreational environment are major focuses of the course. Legislation trends and resources for community recreation integration are also studied.

LESR 485 ***Therapeutic Recreation Internship*** (3 credits)
Prerequisite: Enrolment in the final year* of Specialization in Therapeutic Recreation; LESR 464 must be taken concurrently. In consultation with their mentors, students are given the opportunity to study theoretical and practical problems confronting professionals in the field of therapeutic recreation. The course offers a supervised work experience in an organization offering therapeutic recreation programmes. Each student, during seminar sessions, formulates a study proposal. The internship commences when the proposal has been approved. The internship involves a minimum three-week 120-hour period.
**30 credits or less remaining in programme*

LESR 490 ***Independent Study I*** (3 credits)
Prerequisite: Permission of the programme director. Students work on topics in consultation with a study supervisor. The study may include readings, field studies, and/or research.

LESR 491 ***Independent Study II*** (3 credits)
Prerequisite: Permission of the programme director. A student who has received credit for LESR 490 may register for LESR 491.

LESR 498 ***Advanced Topics in Leisure Studies*** (3 credits)

LESR 499 ***Advanced Topics in Leisure Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.190 LIBRARY STUDIES

Faculty

Director
MARLENE GIGUÈRE, *Assistant Professor*

Associate Professors
ANNE M. GALLER
JOANNE LOCKE

Location

Loyola Campus
Annex TA, Room: 205
(514) 848-2525

Department Objectives

The overall objective of the Library Studies programme is to provide strong undergraduate and graduate programmes which prepare students for paraprofessional work in the field of library/information studies and/or further study in other areas.
The use of computers is integrated throughout the curriculum, and classes are scheduled in a variety of Concordia University Computing Centre labs including the MAC lab and the PC labs. For the majority of courses, students are required to use the Concordia University libraries extensively.
Through its programmes, Library Studies works to meet the needs of the library/information community by offering university-educated individuals for employment in the field, as paraprofessionals, thus filling the gap between the library clerk and the professional librarian.

Programmes

Students are required to complete the appropriate entrance profile for entry into the programme (see §31.002 — Programmes and Admission Requirements — Profiles).
Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

36 BA Major in Library Studies
3 LIBS 205[3]
15 LIBS 303[3], 305[3], 320[3], 322[3], 323[3]
12 LIBS 350[3], 355[3], 410[3], 495[3]
6 LIBS electives in consultation with the programme adviser

60 Certificate in Library Studies
30 LIBS 205[3], 303[3], 305[3], 320[3], 322[3], 323[3], 350[3], 355[3], 410[3], 495[3]
6 LIBS electives in consultation with the programme adviser
24 Electives

NOTE: All Library Studies students must take LIBS 205 as a prerequisite to all other Library Studies courses, the only exceptions being LIBS 411, 433 and 461.

The Library Studies programme offers a *Major in Library Studies* to those who wish to pursue a career in library work at a non-graduate level. For those interested in taking advanced studies in any subject area including library and/or information science/studies at the graduate level, consultation with an adviser at the beginning of the programme is recommended.
The Certificate in Library Studies is offered to meet the needs of students who may not wish to fulfil the requirements of an undergraduate degree. Sixty (60) credits are required to complete the Certificate programme, 36 of which consist of Library Studies, with 24 credits of electives. Students may transfer into the Certificate programme credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Diploma in Library Studies
The Department also offers a Diploma programme for students who have completed their undergraduate degree in another field. Detailed information on the programme is given in the School of Graduate Studies Calendar.

Prerequisites To All Other Courses
LIBS 205 Introduction to Library Services (3 credits)

Required Courses
LIBS 303 Information Services (3 credits)
LIBS 305 Bibliographic Searching (3 credits)

LIBS 320 Cataloguing (3 credits)
LIBS 322 Subject Access and Classification I (3 credits)
LIBS 323 Subject Access and Classification II (3 credits)
LIBS 350 Automated Library Systems I (3 credits)
LIBS 355 Automated Library Systems II (3 credits)
LIBS 410 On-line Information Retrieval (3 credits)

Electives
LIBS 298 Selected Topics in Library Studies (3 credits)
LIBS 299 Selected Topics in Library Studies (6 credits)
LIBS 398 Selected Topics in Library Studies (3 credits)
LIBS 399 Selected Topics in Library Studies (6 credits)
LIBS 407 Research Methodology (3 credits)
LIBS 409 Library Research and Library Resources in Science and Technology (3 credits)
LIBS 411 Library Service and Work with Children (3 credits)
LIBS 421 School Library Services, Collections and Programmes (3 credits)
LIBS 432 Library Service and Work in the College and University (3 credits)
LIBS 433 Technical Skills in Multi-Media Operations (3 credits)
LIBS 435 Organization of Audio-Visual Collections (3 credits)
LIBS 441 Library Service and Work in Business and Industry (3 credits)
LIBS 451 Library Service and Work in the Public Library (3 credits)
LIBS 461 Library Service and Work with the Young Adult (3 credits)
LIBS 498 Advanced Topics in Library Studies (3 credits)
LIBS 499 Advanced Topics in Library Studies (6 credits)

Final Required Course
LIBS 495 Field Practice (3 credits)

Recommended Academic Electives
FRAN 316 Le français de la bibliothéconomie I (3 crédits)
FRAN 317 Le français de la bibliothéconomie II (3 crédits)

Electives Open to Non-Library Studies Students Only
LIBS 250 Introduction to Library Research Practices (3 credits)

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

LIBS 205 ***Introduction to Library Services*** (3 credits)
This course, which is the prerequisite to all others in the programme, introduces students to the organization, functions and services in various types of libraries. Basic information sources available in the literature of librarianship and bibliographic form used in documenting research will also be covered.
NOTE: Students who have received credit for LIBS 201 and LIBS 202 may not take this course for credit.
NOTE: Students who have received credit for LIBS 250 may not take this course.

LIBS 250 ***Introduction to Library Research Practices*** (3 credits)
This course is designed to introduce students to basic library research practices. It familiarizes students with a variety of information sources in both print and non-print formats. Emphasis is placed on a systematic search strategy in the use and evaluation of these information tools. Topics such as outlining and bibliographic format are covered as part of the library research process.
NOTE: Students in degree programmes in Library Studies may not take this course for Library Studies credit.
NOTE: Students who have received credit for LIBS 205 may not take this course.

LIBS 298 ***Selected Topics in Library Studies*** (3 credits)

LIBS 299 ***Selected Topics in Library Studies*** (6 credits)

Specific topics for these courses will be stated in the Undergraduate Class Schedule. Prerequisites relevant in each case to be discussed with the academic adviser.

LIBS 303 ***Information Services*** (3 credits)
Prerequisite: LIBS 205. This course examines the theories and principles of information services and literature searching. Standard general reference works are studied.

LIBS 305 ***Bibliographic Searching*** (3 credits)
Prerequisite: LIBS 205. This course examines the theories and principles of reference work and provides a broad introduction to

bibliographic searching. General and subject bibliographies, indexes and abstracts are examined and evaluated.

LIBS 320 ***Cataloguing*** (3 credits)
Prerequisite: LIBS 205. Familiarity with a computer keyboard is desirable. This course is designed to give the student a basic knowledge of bibliographic control in both manual and automated environments. Emphasis is on pre-cataloguing routines, descriptive cataloguing, MARC coding, and on-line editing.

LIBS 322 ***Subject Access and Classification I*** (3 credits)
Prerequisite: LIBS 320. This course is designed to give the student, who is knowledgeable concerning descriptive cataloguing and MARC format, a basic knowledge of subject cataloguing and classification. Emphasis is placed on Sears List of Subject Headings and the Dewey Decimal Classification Scheme.
NOTE: Students who have received credit for LIBS 324 may not take this course for credit.

LIBS 323 ***Subject Access and Classification II*** (3 credits)
Prerequisite: LIBS 320. This course is designed to give the student, who is knowledgeable concerning descriptive cataloguing and MARC format, a basic knowledge of subject cataloguing and classification. Emphasis is placed on the Library of Congress Subject Headings and the Library of Congress Classification Scheme.
NOTE: Students who have received credit for LIBS 324 may not take this course for credit.

LIBS 350 ***Automated Library Systems I*** (3 credits)
Prerequisite: LIBS 205. This course deals with automation as a tool for improvement of library processes and services. The fundamental principles of computer applications in library systems are covered with emphasis on microcomputers. The course focuses on the areas of acquisitions and cataloguing and how automation can be applied to these functions.
NOTE: Students who have received credit for LIBS 331 and LIBS 345 may not take this course for credit.

LIBS 355 ***Automated Library Systems II*** (3 credits)
Prerequisite: LIBS 350. This course continues the study of automation as a tool for improving library processes and services. Areas examined include serials control, circulation, reference services, and spreadsheet applications for libraries. Current trends and future developments in software and hardware for library automation are covered.
NOTE: Students who have received credit for LIBS 331 and LIBS 345 may not take this course for credit.

LIBS 398 ***Selected Topics in Library Studies*** (3 credits)

LIBS 399 ***Selected Topics in Library Studies*** (6 credits)

Specific topics for these courses will be stated in the Undergraduate Class Schedule. Prerequisites relevant in each case to be discussed with the academic adviser.

LIBS 407 ***Research Methodology*** (3 credits)
Prerequisite: LIBS 303; LIBS 305. The aim of this course is to develop an understanding and appreciation of research methods and approaches specific to subject disciplines, based on the consideration of general principles of research methodology, and the planning of logical research strategies. The library-oriented approach ensures a solid background of data from which problems may be attacked and solutions derived. Topics covered in logical progression include: selecting and defining the problem; planning the research programme; developing and testing hypotheses; collecting, classifying, evaluating, and analyzing evidence; drawing conclusions; presenting results. The course assumes general knowledge of reference and bibliographic sources for at least one academic discipline. Students are evaluated principally on a term paper related to a research strategy, and methods applied to a problem of their own choosing, and on class participation.

LIBS 409 ***Library Research and Library Resources in Science and Technology*** (3 credits)
Prerequisite: LIBS 205; or enrolment in Engineering or in a Major in Science. The course is designed to introduce Science and Engineering undergraduates, as well as the Library Studies student, to the structure of scientific literature, to the basic types of information sources in science and technology, and to information networks, and computer-based retrieval systems. The student also becomes familiar with search strategies and indexing techniques. Emphasis is placed on developing skills in the student's particular discipline or interest.

LIBS 410 ***On-line Information Retrieval*** (3 credits)
Prerequisite: LIBS 305. A theoretical and practical introduction to the operation and use of on-line information retrieval systems. Emphasis is on database file structure, search protocol, Boolean logic, vocabulary control, and search strategy development in relation to searching bibliographic and full text databases.

LIBS 411 ***Library Service and Work with Children*** (3 credits)
The course is designed to introduce the student to the major genres of children's literature. The student examines the methods used in the

library to stimulate the child's love of reading and evaluates children's literature through assignments, films, and a field trip to a children's library.

LIBS 421 ***School Library Services, Collections and Programmes*** (3 credits)
Prerequisite: LIBS 205. The duties and responsibilities of the library assistant, library technician and teacher-librarian are discussed. Topics include programmes for teaching the use of the library, methods for cooperating with teachers, the assembling of materials for instructional units, responding to curriculum demands upon the library, and examining the effects of new curriculum trends in education upon the school library/resource centre.

LIBS 432 ***Library Service and Work in the College and University*** (3 credits)
Prerequisite: LIBS 205. The organization, administration, and functions of academic libraries are studied, with special references to curriculum-oriented library service, and to services relating to large academic research libraries and college libraries.

LIBS 433 ***Technical Skills in Multi-Media Operations*** (3 credits)
This course examines current trends in the information revolution and their effects on communication. Through hands-on experience with desktop publishing and other software, students explore the library applications of multi-media, hypermedia and computer networking, and learn to create promotional materials.

LIBS 435 ***Organization of Audio-Visual Collections*** (3 credits)
Prerequisite: LIBS 320. All aspects of audio-visual materials available in public, university, school and special libraries are studied. The student is introduced to basic reference sources, aids for acquisition, ordering, storage and circulation. Coverage also includes pre-catalog-uing routines and MARC coding. Materials featured are those frequently found in libraries, such as records, cassettes, films, kits, and slides as well as those which are becoming more common such as microforms, video cassettes and videotapes as well as computer programmes and software.

LIBS 441 ***Library Service and Work in Business and Industry*** (3 credits)
Prerequisite: LIBS 205. The role of the library in relation to business and industry is examined. The specific skills and devices employed to provide direct information to the users are explored. Management and administrative concerns are reviewed from the viewpoint of the library and the sponsoring organization.

LIBS 451 ***Library Service and Work in the Public Library*** (3 credits)
Prerequisite: LIBS 205. This course traces the development of the public library, particularly in Québec. It deals with the objectives, roles, and functions of public library service in contempo-rary society. Topics such as freedom of access to information, copyright, public-lending right, and collection and preservation of library materials are explored.

LIBS 461 ***Library Service and Work with the Young Adult*** (3 credits)
This course explores through books the major phenomena of the teenager's world. Some of the skills needed to serve young adults in a library setting are examined. Literature written especially for young adults, and some adult literature which is especially popular with, and suitable for, young people, is studied. A pre-course reading list is available.

LIBS 495 ***Field Practice*** (3 credits)
Prerequisite: Completion of all other required Library Studies courses. In consultation with the appropriate supervising librarian, the student is placed in a local library system other than the library in which the student is employed. The duration of the field practice is five weeks. Field practice includes a wide variety of library tasks. In addition the student is required to complete a written research project on a topic approved by the professor.

LIBS 498 ***Advanced Topics in Library Studies*** (3 credits)

LIBS 499 ***Advanced Topics in Library Studies*** (6 credits)

Specific topics for these courses will be stated in the Undergraduate Class Schedule. Prerequisites relevant in each case to be discussed with the academic adviser.

31.200 MATHEMATICS AND STATISTICS

Faculty

Chair
JOEL HILLEL, *Professor*

Professor Emeritus
DAVID WHEELER

Professors
SYED TWAREQUE ALI
ABRAHAM J. BOYARSKY
WILLIAM P. BYERS
YOGENDRA P. CHAUBEY
TRYAMBKESHWAR DWIVEDI
RICHARD L. HALL
JOHN HARNAD
ZOHEL KHALIL
HERSHY KISILEVSKY
ROBERT RAPHAEL
RONALD J. STERN
MANFRED E. SZABO
YAO H. WANG

Professor of Mathematics and Computer Science
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KAILASH K. ANAND
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JOSE GARRIDO
PAWEL GORA
JAMES C. HAYES
ATTILA KEVICZKY
HAYON KIM
MOHAMMAD A. MALIK
HARALD W. PROPPE
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JOSEPH SORIC
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JEAN C. TURGEON
MOHAMMAD ZAKI

Adjunct Associate Professors
EWA DUMA
HENRY HUNG
JOHN SELDIN

Assistant Professor
CHANTAL DAVID

Location

Loyola Campus
Hingston Hall B, Room: HB 234
(514) 848-3232

Sir George Williams Campus
J.W. McConnell Building, Room: LB 525
(514) 848-3222

Department Objectives

The Department of Mathematics and Statistics provides the general mathematical culture necessary for training those who will either be using the tools of mathematics in their work or who will become future mathematicians. For students who are contemplating graduate work in mathematics, the Department has leading researchers in the fields of Number Theory and Computational Algebra, Differential Geometry and Mathematical Physics, Dynamical Systems, Mathematics Education and Probability and Statistics.

In addition to its co-op programme, alternating Work and Academic terms, the Department offers a programme in Actuarial Mathematics and prepares students for the associateship examinations of the Society of Actuaries.

The Department also provides instruction at the remedial and introductory levels to enable students who have been out of school for some time to re-enter the academic stream; and offers special courses for teachers of mathematics who wish to keep abreast of recent ideas and applications.

Programmes

Students are required to complete the appropriate entrance profile for entry into the programme (see §31.002 — Programmes and Admission Requirements — Profiles).

A student wishing to follow a Mathematics programme but not meeting the entrance requirements should consult with the Department.

By careful choice of electives, students can select whether the emphasis of the programme will be in the area of Pure Mathematics, Applied Mathematics, Statistics, or Actuarial Mathematics.

Students in a Mathematics programme may not take any of the following courses for credit: EMAT 212, 232, 252, 271. Students wishing to take other Engineering Mathematics courses for credit must obtain prior approval of the Department.

Students are responsible for satisfying their particular degree requirements. The superscript indicates credit value.

66 BA or BSc Honours in Mathematics

48 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 362[3], 363[3], 366[3], 393[3], 394[3], 464[3], 467[3], 491[3]

12 MATH chosen with prior departmental approval from MATH 216[3], 322[3], 334[3], 373[3], 379[3], 380[3], 381[3], 392[3], 466[3], 480[3], 492[3], 496[3]

6 MATH chosen with prior departmental approval

60 BA or BSc Specialization in Mathematics

39 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 362[3], 363[3], 366[3], 393[3], 394[3]

15 MATH chosen with prior departmental approval from MATH 216[3], 322[3], 334[3], 373[3], 379[3], 380[3], 381[3], 392[3], 464[3], 466[3], 467[3], 491[3]

6 MATH chosen with prior departmental approval

36 BA or BSc Major in Mathematics

30 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 362[3], 393[3]

6 MATH chosen with prior departmental approval from MATH 216[3], 322[3], 363[3], 366[3], 373[3], 379[3], 380[3], 392[3], 394[3]

66 BA or BSc Honours in Statistics

51 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 337[3], 348[3], 362[3], 363[3], 443[3], 448[3], 454[3], 464[3], 467[3]

9 MATH chosen with prior departmental approval from MATH 216[3], 334[3], 342[3], 343[3], 347[3], 353[3], 445[3], 451[3]

6 MATH chosen with prior departmental approval

60 BA or BSc Specialization in Statistics

45 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 337[3], 348[3], 362[3], 363[3], 443[3], 448[3], 454[3]

9 MATH chosen with prior departmental approval from MATH 216[3], 334[3], 342[3], 343[3], 347[3], 353[3], 445[3], 451[3]

6 MATH chosen with prior departmental approval

36 BA or BSc Major in Statistics

30 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 348[3], 448[3]

6 MATH chosen with prior departmental approval from MATH 216[3], 337[3], 342[3], 343[3], 347[3], 353[3], 443[3], 454[3]

66 BA or BSc Honours in Actuarial Mathematics

57 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 311[3], 326[3], 327[3], 337[3], 348[3], 362[3], 363[3], 427[3], 437[3], 443[3], 464[3]

6 MATH 229[2], 329[2], 429[2]

3 MATH chosen with prior departmental approval from MATH 428[3], 454[3], 467[3]

60 BA or BSc Specialization in Actuarial Mathematics

54 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 311[3], 326[3], 327[3], 337[3], 348[3], 362[3], 363[3], 427[3], 437[3], 443[3]

6 MATH 229[2], 329[2], 429[2]

66 BA or BSc Honours in Applied Mathematics

54 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 311[3], 336[3], 337[3], 362[3], 363[3], 371[3], 436[3], 437[3], 464[3], 467[3]

12 MATH or cognate disciplines chosen with prior departmental approval

60 BA or BSc Specialization in Applied Mathematics

48 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 311[3], 336[3], 337[3], 362[3], 363[3], 371[3], 436[3], 437[3]

12 MATH or cognate disciplines chosen with prior departmental approval

36 BA or BSc Major in Applied Mathematics

30 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3], 336[3], 436[3]

6 MATH chosen with prior departmental approval from MATH 216[3], 311[3], 312[3], 337[3], 371[3], 373[3], 379[3], 432[3], 437[3]

24 Minor in Mathematics

24 MATH 231[3], 242[3], 243[3], 262[3], 263[3], 271[3], 282[3], 283[3]

24 Minor in Statistics

24 MATH 231[3], 242[3], 243[3], 282[3], 283[3], 343[3], 348[3], 448[3]

24 Minor in Mathematics for Students in BA Programmes

24 MATH credits approved by the Department of Mathematics. At least 12 credits must be at the level of MATH 216 or above.

NOTE: Students in BA programmes are also eligible for a regular Minor in Mathematics or Statistics provided they have the necessary prerequisites.

MATHEMATICS AND STATISTICS CO-OPERATIVE PROGRAMME

Director
MANFRED E. SZABO, *Professor*

The Mathematics and Statistics Co-operative programme is offered to students who are enrolled in the BA or BSc Honours or Specialization programmes. Students interested in applying for the Mathematics and Statistics co-op should refer to §24 where a full description of the admission requirements is provided.
Academic content is identical to that of the regular programme, but six Study terms are interspersed with four Work terms.
Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.
Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Mathematics and Statistics co-op committee, which includes the student's advisers.
Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

MATH 200 ***Fundamental Concepts of Algebra*** (3 credits)
This course is designed to give students the background necessary for MATH 201. Some previous exposure to algebra is assumed. Sets, algebraic techniques, inequalities, graphs of equations.
NOTE: Students who have received credit or exemption for MATH 201 or equivalent may not take this course for credit.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 201 ***Elementary Functions*** (3 credits)
Sets, inequalities, graphs of functions, and relations. Trigonometric, exponential, and logarithmic functions. Lectures and laboratory.
NOTE: Students who have received credit or exemption for MATH 203 or equivalent, or for a course having MATH 203 or equivalent in its sequence of prerequisites, may not take this course for credit.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 202 ***College Algebra*** (3 credits)
Prerequisite: MATH 201 or equivalent.
Progressions, combinations, permutations, binomial theorem, mathematical induction, inequalities, polynomials, cartesian and polar forms of complex numbers, conics.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 203 ***Differential and Integral Calculus I*** (3 credits)
Prerequisite: MATH 201 or equivalent.
Functional notation. Differentiation of polynomials. The power, product, quotient, and chain rules. Differentiation of elementary functions. Implicit differentiation. Higher derivatives. Maxima and minima. Applications: tangents to plane curves, graphing, related rates. Approximations using the differential. Antiderivatives, definite integrals, area. Lectures and laboratory.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 204 ***Vectors and Matrices*** (3 credits)
Prerequisite: MATH 201 or equivalent. Algebra and geometry of vectors, dot and cross products, lines and planes. System of equations, operations on matrices, rank, inverse, quadratic form, and rotation of axes.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 205 ***Differential and Integral Calculus II*** (3 credits)
Prerequisite: MATH 203. Techniques of integration: substitutions, integration by parts, partial fractions. Improper integrals. Physical applications of the definite integral. Infinite series: tests for convergence. Power series, Taylor's theorem. Lectures and laboratory.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 206 ***Algebra and Functions*** (3 credits)
Coordinate systems. Radicals and distance formula. Polynomials, factoring, and graphing. Relations and functions. Linear and quadratic functions, equations, and systems. Exponents, exponential and logarithmic functions and

equations.
NOTE: Students who have received credit or exemption for a course at the level of MATH 201 or above may not take this course for credit.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 207 ***Statistics for the Social Sciences*** (3 credits)
Prerequisite: MATH 206 or equivalent, or permission of the Department of Mathematics. Elementary probability, permutations and combinations, binomial and normal distribution. Analysis and organization of statistical data. Tests of hypotheses. Confidence limits. Introduction into linear regression and correlation. Lectures and laboratory.
NOTE See §200.7
NOTE: Students who have received credit or exemption for MATH 242, 243 or equivalent may not take this course for credit.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 208 ***Fundamental Mathematics I*** (3 credits)
Prerequisite: MATH 206 or equivalent. This course is a prerequisite course for Commerce and Administration students*. Matrices, Gaussian elimination, input-output analysis, progressions, compound interest, annuities, permutations and combinations, probability, binomial theorem, exponential and logarithmic functions, inequalities, linear programming.
**NOTE: See §14.4.2 (Mature Entry) and 61.20 (Extended Credit).*
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 209 ***Fundamental Mathematics II*** (3 credits)
Prerequisite: MATH 206 or equivalent. This course is a prerequisite course for Commerce and Administration students*. Limits; differentiation of rational, exponential, and logarithmic functions; theory of maxima and minima; integration.
**NOTE: See §14.4.2 (Mature Entry) and 61.20 (Extended Credit).*
NOTE: Students who have received credit or exemption for MATH 203 or equivalent may not take this course for credit.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 210 ***Mathematics for the Biological Sciences I*** (3 credits)
Prerequisite: CEGEP Mathematics 103 or MATH 203. Discrete probability, probability distributions, difference equations, differential equations, transients, steady-state solutions, system concept, block diagrams, linear programming, game theory. Markov chains, applications to ecology, population models, physiology.

MATH 211 ***Fundamental Mathematics III*** (3 credits)
Prerequisite: MATH 209. This course is a prerequisite for Commerce and Administration students*. Functions of two variables, partial derivatives, maxima and minima; iterated integrals; difference and differential equations, Taylor polynomials, root approximations, numerical integration.
**NOTE: See §14.4.2 (Mature Entry) and 61.20 (Extended Credit).*
NOTE: Students who have received credit or exemption for MATH 205 or equivalent may not take this course for credit.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

MATH 215 ***Ideas in Mathematics*** (3 credits)
Mathematical ideas and techniques permeate Western civilization, but because mathematics operates at a high level of abstraction and uses an esoteric language, its contribution is not well understood. Avoiding mathematical technicalities as much as possible, this course attempts to demonstrate a few of the powerful ideas that have animated the development of mathematics. Examples of mathematical thinking from various periods of mathematical history are examined and related to their scientific and social impact.
NOTE: This course is designed as a suitable elective for students following an undergraduate programme. It has no formal prerequisites and will not qualify students to enrol for any other mathematics course, and cannot be used to satisfy a mathematics requirement in any BSc or BA programme.
NOTE: Students who have received credit for INTE 215 may not take this course for credit.

MATH 216 ***Introduction to Mathematical Thinking*** (3 credits)
Number systems, finite vs. infinite, role of examples and counter-examples; role of specialization and generalization; role of symbols, notation, and definitions; techniques of problem-solving and styles of mathematical discourse.
NOTE: This course is restricted to students in Mathematics programmes with no more than 15 credits in Mathematics.

MATH 220 ***Mathematical Methods in Chemistry*** (3 credits)
Prerequisite: CEGEP Mathematics 203 or MATH 205. Partial derivatives. First-order differential equations (first- and second-order chemical reactions). Hermite, Laguerre, and Legendre equations. Solutions by power series. Eigenfunctions and eigenvalues, Sturm-Liouville theory.

MATH 225 ***Introduction to Actuarial Mathematics*** (3 credits)
Prerequisite: MATH 202 or 208; MATH 203 or 209 or equivalent. Simple interest, compound interest, force of interest; annuities-certain, continuous annuities-certain, perpetuities; amortization and sinking funds, graduated mortgage schemes; bonds and related securities; capital cost and depletion. Brief introduction to life insurance.

MATH 229 ***Workshop in Actuarial Mathematics I*** (2 credits)
Prerequisite: MATH 263; MATH 283 previously or concurrently, or permission of the Department. This workshop is intended to prepare students for the general mathematics examination of the Society of Actuaries and the Casualty Actuarial Society. Special topics from calculus, introductory real analysis, and linear algebra which are not normally included in first courses are covered with the instructor.

MATH 231 ***Introduction to Applied Mathematics*** (3 credits)
Prerequisite: MATH 282 or equivalent. Introduction to the theory of optimization, linear programming, the Simplex Method. Deterministic and stochastic models for growth processes. Introduction to graphs and networks. Applications.
NOTE: Only three credits will be awarded from MATH 231; DESC 250, 313; ENGR 412.

MATH 232 ***Computing in Mathematics*** (3 credits)
Prerequisite: CEGEP Mathematics 105 or MATH 204; CEGEP Mathematics 203 or MATH 205. Introduction to APL, primitive and dyadic operators, simple and mixed functions. Programming and editing, dealing with workspaces. Applications to calculus (sequences, series, convergence, and integrals), to statistics (simulations, combinatorics, and distributions) and to algebra (systems of equations, matrices, and non-linear equations).

MATH 242 ***Introduction to Probability*** (3 credits)
Prerequisite: CEGEP Mathematics 203 or MATH 205. Elementary combinatorics, elementary rules of probability, random variables, probability distributions, mathematical expectation, sampling distributions.
NOTE See §200.7

MATH 243 ***Introduction to Mathematical Statistics*** (3 credits)
Prerequisite: MATH 242 or equivalent. Point and interval estimation, hypothesis testing, non-parametric methods, introduction to regression and correlation. *NOTE See §200.7*

MATH 262 ***Advanced Calculus I*** (3 credits)
Prerequisite: CEGEP Mathematics 105 or MATH 204; CEGEP Mathematics 203 or MATH 205. Geometry of curves and surfaces, functions of several variables, partial derivatives, chain rule, tangent planes, extrema, Lagrange multipliers, Jacobians of transformations and multiple integrals, infinite series, power series, and Taylor series.

MATH 263 ***Advanced Calculus II*** (3 credits)
Prerequisite: MATH 262 or equivalent. Functions from R^m to R^n, transformations between different coordinate systems, line integrals, Green's theorem, potentials and vector fields, divergence and curl, conservative fields, exact differentials, surface integrals, Gauss' and Stokes' theorems, applications.

MATH 271 ***Differential Equations I*** (3 credits)
Prerequisite: CEGEP Mathematics 105 or MATH 204; CEGEP Mathematics 203 or MATH 205. Separable equations, exact equations, integrating factors, force fields, first-order linear equations, input-output concept, second-order equations, reduction of order, variation of parameters, nth-order linear equations with constant coefficients, Laplace transforms, block diagrams, and signal-flow graphs.

MATH 282 ***Linear Algebra I*** (3 credits)
Prerequisite: CEGEP Mathematics 105 or MATH 204. Systems of linear equations, vector spaces, bases and dimension, linear transformations and matrix representation, rank, determinants, eigenvalues and eigen-vectors.

MATH 283 ***Linear Algebra II*** (3 credits)
Prerequisite: MATH 282 or equivalent. Diagonalization, minimal polynomial, canonical forms, Cayley-Hamilton theorem, inner product and orthogonality, isometries, perturbations, quadratic forms.

MATH 290 ***Algebraic Systems (Introduction)*** (3 credits)
Prerequisite: CEGEP pre-Science Mathematics profile or equivalent. Sets, functions, binary operations, examples of number systems, polynomial functions, divisibility, definitions and examples of groups and subgroups, fields.

MATH 298 ***Selected Topics in Mathematics*** (3 credits)

MATH 299 ***Selected Topics in Mathematics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

MATH 310 ***Mathematics for the Biological Sciences II*** (3 credits)
Prerequisite: MATH 210 or equivalent. Continuous probability, stochastic processes, population models, systems of linear difference and differential equations, Laplace transforms,

signal-flow graphs, systems trajectories, stability, applications to ecology and biology.

MATH 311 ***An Introduction to Numerical Analysis*** (3 credits)
Prerequisite: CEGEP Mathematics 105 or MATH 204; CEGEP Mathematics 203 or MATH 205; MATH 232 or equivalent. Error analysis and computer arithmetic. Numerical solution of non-linear equations, fixed-point iterations, rate of convergence. Interpolations and approximations, Lagrange polynomials, divided differences, discrete least-square approximation, Legendre polynomials. Numerical integration, Newton-Cotes formulas, Romberg integration.
NOTE: Only three credits will be granted from MATH 311 and COMP 361.

MATH 312 ***Numerical Analysis*** (3 credits)
Prerequisite: MATH 311 or COMP 361 or equivalent; MATH 263; MATH 283 or equivalent. Linear Systems: Cholesky decomposition for positive definite systems; tri-diagonal case. Orthogonal factorizations: householder matrices, least-square solutions for over-determined systems. Data fitting: piecewise, splines, continuous least-squares. Quadrature: infinite intervals, orthogonal polynomials, Gaussian quadrature. Differential equations: systems of ODE's, predictor-corrector formula, stability, error analysis. Eigenvalue problem: Bisection, deflation, tridiagonalization, inverse iteration.

MATH 322 ***Mathematical Logic*** (3 credits)
Prerequisite: Eighteen credits in post-CEGEP Mathematics. This course deals with the mathematical ideas and techniques required to state and prove one of the most spectacular theorems of modern mathematics: Godel's incompleteness theorem establishing the non-algorithmic nature of arithmetic and, hence, of most of higher mathematics. The subject involves the study of formal languages and recursive functions and is suitable for students interested in computer science.

MATH 326 ***Theory of Interest*** (3 credits)
Prerequisite: MATH 262, 282 previously or concurrently; and permission of the Department. Measurement of interest; annuities, amortization, schedules, and sinking funds; bonds and securities; capital cost and depletion; life insurance.

MATH 327 ***Life Contingencies I*** (3 credits)
Prerequisite: MATH 326. Measurement of mortality: survival function, mortality tables, force of mortality; special topics.

MATH 329 ***Workshop in Actuarial Mathematics II*** (2 credits)
Prerequisite: MATH 243 or permission of the Department. This workshop is intended to prepare students for the probability and statistics examination of the Society of Actuaries and the Casualty Actuarial Society.

MATH 332 ***Introduction to Game Theory*** (3 credits)
Prerequisite: Eighteen credits in post-CEGEP Mathematics. Matrix games. Strategies. Optimum strategies and the value of a game. Strictly determined games, Non-strictly determined games and linear programming. Applications. Further material according to interest of instructor and students.

MATH 334 ***Combinatorics*** (3 credits)
Prerequisite: Eighteen credits in post-CEGEP Mathematics. General principle of counting, permutations, combinations, identities, generating functions; Fibonacci numbers; partitions, recurrence relations, Stirling numbers, Catalan numbers, principle of inclusion-exclusion, cycles of a permutation, orbits of permutation groups, parity of a permutation, Polya's theorem.

MATH 336 ***Linear Programming*** (3 credits)
Prerequisite: MATH 231, 283. Convex sets and convex functions, polyhedral sets and cones, degeneracy and cycling, the revised Simplex method, sensitivity and parametric analysis, the transportation and assignment problems, minimal cost network flows, maximal flow problems; integer programming.

MATH 337 ***Introduction to Stochastic Methods of Operations Research*** (3 credits)
Prerequisite: MATH 231, 243. Random variables, distributions, conditional probability, conditional expectations; Markov decision process and applications; inventory theory; applications in queueing systems.
NOTE: Students who have received credit for MATH 351 or DESC 314 may not take this course for credit.

MATH 342 ***Quality Control and Industrial Statistics*** (3 credits)
Prerequisite: MATH 243 or permission of the Department. Concepts of statistical control; X, R, P, and C charts; acceptance-sampling inspection, continuous-sampling plans, reliability and life tests.

MATH 343 ***Sample Surveys*** (3 credits)
Prerequisite: MATH 243 or permission of the Department. Simple random sampling, stratified random sampling, systematic sampling, multi-stage sampling, regression and ratio estimates, non-sampling errors.

MATH 347 ***Non-Parametric Statistical Methods*** (3 credits)
Prerequisite: MATH 243. Chi-square and Kolmogorov-Smirnov Goodness-of-Fit tests, the sign, rank, and Mann-Whitney Wilcoxon tests for one and two samples, Kruskal-Wallis tests for k-samples, rank correlation and Kendall's TAU statistics, computer packages.

MATH 348 ***Regression and Correlation*** (3 credits)
Prerequisite: MATH 243. Simple, multiple, and polynomial regression, least-square estimations, Gauss-Markov theorem; analysis of residuals; analysis of binary data; multi-collinearity, auto-correlation models; step-wise regression; multivariate normal distributions and correlation analysis.

MATH 353 ***Stochastic Processes and Applications*** (3 credits)
Prerequisite: MATH 337 or 351. Continuous stochastic processes. Poisson processes, continuous-time Markov processes, queueing models, birth and death processes, renewal theory, and reliability of systems.

MATH 362 ***Introduction to Analysis I*** (3 credits)
Prerequisite: MATH 263, 283. The real number system, least upper bounds. Limits, continuity. Differentiation and integration. The fundamental theorem of the integral calculus.

MATH 363 ***Introduction to Analysis II*** (3 credits)
Prerequisite: MATH 362. Convex functions. Inverse functions. Taylor polynomials. Sequences, series of functions, uniform convergence. Real and complex power series. Cardinality.

MATH 366 ***Complex Analysis I*** (3 credits)
Prerequisite: MATH 263. Algebra and geometry of complex numbers, linear transformations, analytic functions, Laurent's series, calculus of residues, special functions.

MATH 371 ***Differential Equations II*** (3 credits)
Prerequisite: MATH 263, 271, 283. Numerical methods for ordinary differential equations, relation-to-existence theorem, solution-in-power series. Partial differential equations, separation of variables, Fourier series, diffusion equation, wave equation, Laplace's equation, Schrodinger's equation. Separation of variables leading to further applications of power-series method. Physical illustrations and problems.

MATH 373 ***Qualitative Theory of Differential Equations*** (3 credits)
Prerequisite: MATH 263, 271, 283. Systems of linear differential equations. Fundamental matrices. Non-homogeneous linear systems. Non-linear systems. Solutions and trajectories. The phase plane. Stability concepts. Liapunov's second method. Periodic solutions and limit cycles. Introduction to boundary-value problems and Sturm-Liouville theory.

MATH 379 ***Discrete Dynamical Systems and Chaos*** (3 credits)
Prerequisite: MATH 362 or permission of the Department. Introduction to discrete dynamical modelling. First-order linear dynamical systems. Non-linear dynamical systems: complex behaviour, bifurcation theory, and chaos. Higher dimensional non-linear systems, phase plane analysis, computer simulation.

MATH 380 ***Differential Geometry I*** (3 credits)
Prerequisite: MATH 263, 271, 283. Calculus on Euclidean space, tangent vectors, directional derivatives, differential forms, mappings, curves, frame fields, Serret-Frenet formulas, covariant derivatives; calculus on a surface, tangent spaces, differential forms on a surface, mappings between surfaces, integration of forms, Stokes' theorem.

MATH 381 ***Linear Algebra III*** (3 credits)
Prerequisite: MATH 283. Matrices, linear transformations, determinants, metric concepts, inner-product spaces, dual spaces, spectral theorem, bilinear and quadratic forms, canonical forms for linear transformations, matrix functions, selected topics.

MATH 392 ***Elementary Number Theory*** (3 credits)
Prerequisite: Eighteen credits in post-CEGEP Mathematics. Number systems, division and factorization, number-theoretic functions, congruences, algebraic congruences and primitive roots, quadratic residues, diophantine equations.

MATH 393 ***Algebraic Systems I*** (3 credits)
Prerequisite: Twelve credits in post-CEGEP Mathematics or permission of the Department. Introduction to algebraic systems: groups, rings, fields, homomorphisms.

MATH 394 ***Algebraic Systems II*** (3 credits)
Prerequisite: MATH 393 or equivalent. Normal subgroups, quotient groups, isomorphism theorems, polynomial rings, principal ideal rings, elementary field theory.

MATH 397 ***History of Mathematics*** (3 credits)
Prerequisite: MATH 263; MATH 283, or permission of the Department. Early mathematics, Greek mathematics, European mathematics in the Middle Ages, the origin and development of analytic geometry and calculus, mathematics as free creation, the generality of mathematics in the twentieth century.

MATH 398 ***Selected Topics in Mathematics*** (3 credits)

MATH 399 ***Selected Topics in Mathematics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

MATH 427 ***Life Contingencies II*** (3 credits)
Prerequisite: MATH 327. Life annuities; pure endowments, annual payments, continuous annuities, net annual premium, net level premium reserves; the expense factor; special topics.

MATH 428 ***Life Contingencies III*** (3 credits)
Prerequisite: MATH 327. Applications of contingency theory in areas of life and health insurance, annuities and pension; individual risk theory, ruin theory.

MATH 429 ***Workshop in Actuarial Mathematics III*** (2 credits)
Prerequisite: MATH 327 or permission of the Department. This workshop reviews and consolidates the material from other courses in the programme of the Actuarial Society's Examination on Life Contingencies.

MATH 432 ***Theory of Graphs and Networks*** (3 credits)
Prerequisite: Permission of the Department. Directed and undirected graphs. Partitions, planar graphs, matrix representation, applications to network theory.

MATH 433 ***Calculus of Variations*** (3 credits)
Prerequisite: MATH 373. Nature of problems, weak variations, the first variation, Euler's equation. The second variation, Jacobi's equation, Legendre's test, conjugate points. Relative maxima and minima, iso-perimetrical problems. Integrals with variable end points. Applications to problems in pure and applied mathematics; the principle of least action. Strong variations, the Weierstrass E-function.

MATH 435 ***Advanced Numerical Analysis*** (3 credits)
Prerequisite: MATH 311, 312. Advanced problems and techniques in numerical linear algebra, systems of non-linear equations, roots of polynomials, spline fitting, mini-max fitting, extrapolation techniques, solution of initial value problems in ordinary differential equations, solution of two-point boundary value problems in ordinary differential equations, elliptic partial differential equations, finite difference and finite element methods for hyperbolic and parabolic partial differential equations.

MATH 436 ***Non-Linear Programming*** (3 credits)
Prerequisite: MATH 336 or permission of the Department. Classical methods of optimization, Lagrange multipliers, Kuhn-Tucker conditions; line search methods, quadratic programming, gradient methods. Introduction to dynamic programming.

MATH 437 ***Applied Stochastic Models in Operations Research*** (3 credits)
Prerequisite: MATH 337 or 351. Dynamic programming, renewal theory and applications, system reliability; simulation and Monte-Carlo technique; network analysis.

MATH 443 ***Time Series and Forecasting*** (3 credits)
Prerequisite: MATH 348. Time series, forecasting by trend and irregular components (using multiple regression analysis and exponential smoothing); forecasting seasonal time series, additive and multiplicative decomposition methods, box-Jenkins methodology, moving average, autoregressive and mixed models. Standard computer packages are used.
NOTE: Students who have received credit for DESC 447 may not take this course for credit.

MATH 445 ***Applied Statistics*** (3 credits)
Prerequisite: MATH 337 or 351; 348. The course contents are chosen from: sequential procedures; multivariate analysis; time series; reliability; advanced design of experiments; estimations and testing of hypothesis.

MATH 448 ***Analysis of Variance*** (3 credits)
Prerequisite: MATH 348. Single and multiple factor analysis of variance (ANOVA); fixed, random, and mixed effects models; multiple comparison; determination of sample size; nonparametric procedures.

MATH 451 ***Advanced Probability*** (3 credits)
Prerequisite: MATH 337 or 351. Markov chains, occupancy and matching problems, characteristic functions and moment-generating functions, central limit theorem and weak law of large numbers, probability generating functions and applications to combinatorial problems, random walk and the reflection principle, branching processes.

MATH 454 ***Mathematical Statistics*** (3 credits)
Prerequisite: MATH 337 or 351. Multivariate distributions, derivation of distributions using transformation method; standard sampling distributions, order statistics, descriptive and inferential statistics; estimation, properties of estimators, Rao-Cramer inequality, Rao-Blackwell theorem; maximum likelihood and method of moments estimators; tests of hypotheses, Neyman-Pearson theory, likelihood ratio tests and their properties.

MATH 464 ***Real Analysis*** (3 credits)
Prerequisite: MATH 363. Metric spaces; function spaces; compactness, completeness, fixed-point theorems, Ascoli-Arzela theorem, Weierstrass approximation theorem.

MATH 466 ***Complex Analysis II*** (3 credits)
Prerequisite: MATH 363, 366. Cauchy's theorem, singularities, maximum modulus principle, uniqueness theorem, normal families, Riemann mapping theorem.

MATH 467 ***Measure and Integration*** (3 credits)
Prerequisite: MATH 363. Lebesque measure and integration on the real line, convergence theorems, absolute continuity, completeness of $L^2[0,1]$.

MATH 471 ***Partial Differential Equations*** (3 credits)
Prerequisite: MATH 371 or 373. Classification of partial differential equations, the Cauchy-Kowalewski theorem, characteristics, boundary value and eigenvalue problems for elliptic equations, initial value and initial boundary value problems for parabolic and hyperbolic equations.

MATH 472 ***Linear Systems*** (3 credits)
Prerequisite: MATH 283; MATH 371 or 373. State-space analysis and design of continuous and discrete systems. Controllability and observability, modal control, pole-displacement techniques. Luenberger observers, Liapunov stability.

MATH 473 ***Stability Theory of Differential Equations*** (3 credits)
Prerequisite: MATH 373. Existence and uniqueness of solutions of non-linear differential equations. Properties of solutions. Linear systems. Asymptotic behaviour of linear systems. Stability in non-linear systems. Linearization. Liapunov functions. Two-dimensional systems. Limit cycles.

MATH 474 ***Introduction to Mathematical Control Theory*** (3 credits)
Prerequisite: MATH 363, 472. Linear control systems. Attainable sets; compactness, convexity, continuity in time. Controllability and observability. Time optimal control. Maximum principle. Examples of physical systems. Switching curves. Optimal control with quadratic cost.

MATH 480 ***Differential Geometry II*** (3 credits)
Prerequisite: MATH 380. Connection forms, structural equations of Cartan, topological properties of surfaces, shape operators for surfaces, curvature, isometries, intrinsic geometry of surfaces, integration and orientation, congruence; Riemannian geometry, geometric surfaces, curvature, geodesics, Gauss-Bonnet theorem.

MATH 491 ***Abstract Algebra I*** (3 credits)
Prerequisite: MATH 394 or equivalent. Sylow theorems, composition series, ideal theory of rings, noetherian rings, modules.

MATH 492 ***Abstract Algebra II*** (3 credits)
Prerequisite: MATH 491 or equivalent. Elements of field and Galois theory, including straight-edge-and-compass construction and the unsolvability of equations of fifth degree.

MATH 496 ***Mathematical Thinking*** (3 credits)
Prerequisite: Permission of the Department. This course is intended to stimulate the students' mathematical creativity and to improve their ability to think systematically, analyse problems, and communicate their reasoning. Students participate actively in discussing and solving problems drawn from a variety of sources (including previous Putnam competitions) and are expected to explain their thinking both orally and in writing. Discussions include the following topics: problem-posing, Polya's techniques of problem-solving; equivalence and similarity of problems; generalization; applications. The problems are selected from: combinatorics, geometry, group theory, number theory, real analysis, etc. *NOTE: Students who have received credit for MATH 499 may not take this course for credit.*

MATH 498 ***Advanced Topics in Mathematics*** (3 credits)

MATH 499 ***Advanced Topics in Mathematics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.210 MODERN LANGUAGES AND LINGUISTICS

Faculty

Chair
ANNETTE TEFFETELLER, *Associate Professor (Linguistics)*

Professor Emeritus
CARLO FONDA

Professors
FRANCISCO ANTOLIN *(Spanish)*
CHARLES R. BARTON *(Linguistics)*

Associate Professors
ANTHONY COSTANZO *(Italian)*
HELMUT FAMIRA *(German)*
MARK HALE *(Linguistics)*
JOSEPH A. MACALUSO *(Spanish)*
CAROLINE MARKOLIN *(German)*
FILIPPO SALVATORE *(Italian)*
HERFRIED SCHEER *(German)*
CATHARINA VALLEJO *(Spanish)*
BRUNO VILLATA *(Italian)*

Assistant Professor
CHARLES REISS *(Linguistics)*

Location

Loyola Campus
Centennial Building, Room: CH 131
(514) 848-2310

Department Objectives

The Department of Modern Languages and Linguistics offers undergraduate programmes leading to the BA degree in German, Italian, Spanish, and Linguistics. Through its commitment to teaching and research, the Department seeks to provide a stimulating intellectual milieu for learning languages and linguistics skills and theory, and for the humanistic and analytic study of literature.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
All these programmes can normally be completed within the regular three-year university sessions.

60 BA Honours in German
6 GERM 240[6], or 241[3] and 242[3]
45 credits selected from courses with numbers higher than 242, of which 15 credits must be from GERM 400[6] and above.
6 GERM 452[6]
3 GERM 490[3]

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

60 BA Honours in Italian
6 ITAL 240[6], or ITAL 241[3] and 242[3], or ITAL 253[3] and 254[3]
12 ITAL 301[3], 302[3], 310[3], 311[3]
42 credits in an approved sequence chosen from any of the following:
ITAL 256[3], 257[3], 306[3], 307[3], 365[3], 366[3], 398[3], 399[6], 410[3], 415[3], 416[3], 420[3], 421[3], 425[3], 430[3], 432[3], 433[3], 435[3], 436[3], 437[3], 439[3], 442[3], 443[3], 445[3], 446[3], 461[3], 462[3], 480[3], 481[3], 482[3], 483[3], 490[3], 498[3], 499[6]

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

60 BA Honours in Spanish
6 SPAN 240[6], or 241[3] and 242[3]
12 SPAN 301[3], 302[3], 304[3], 403[3]
3 SPAN 362[3], 363[3], 365[3]
3 SPAN 490[3] (Honours Essay Tutorial)
36 credits in an approved sequence chosen from any of the following:
SPAN 310[3], 311[3], 320[3], 321[3], 362[3] or 363[3], 365[3], 398[3], 399[6], 406[3], 411[3], 412[3], 416[3], 417[3], 420[3], 421[3], 422[3], 423[3], 424[3], 430[3], 441[3], 442[3], 450[3], 461[3], 498[3], 499[6]

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

42 BA Major in German
6 GERM 240[6], or 241[3] and 242[3]
30 credits selected from courses with numbers higher than 242, of which 12 credits must be from GERM 400[6] and above.
6 GERM 452[6]

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

42 BA Major in Italian
6 ITAL 240[6], or ITAL 241[3] and 242[3], or ITAL 253[3] and 254[3]
12 ITAL 301[3], 302[3], 310[3], 311[3]
24 credits from Italian courses numbered 256 and higher in a sequence approved by the Department.

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

42 BA Major in Spanish – Literature
6 SPAN 240[6], or 241[3] and 242[3]
9 SPAN 301[3], 302[3], 304[3]
3 SPAN 362[3], 363[3], 365[3]
24 credits in approved sequence chosen from any of the following:
SPAN 310[3], 311[3], 320[3], 321[3], 398[3], 399[6], 403[3], 406[3], 411[3], 412[3], 416[3], 417[3], 420[3], 421[3], 422[3], 423[3], 424[3], 430[3], 441[3], 442[3], 450[3], 461[3], 498[3], 499[6]

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

42 BA Major in Spanish – Language
6 SPAN 240[6], or 241[3] and 242[3]
6 SPAN 256[3], 257[3]
9 SPAN 301[3], 302[3], 370[3]
12 SPAN 362[3] or 363[3], 401[3], 461[3], 464[3]
9 credits in approved sequence chosen from any of the following:
SPAN 306[3], 307[3], 310[3], 311[3], 320[3], 321[3], 362[3] or 363[3], 365[3]; LING 200[6], 441[6]

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

30 Minor in German
30 credits in German of which at least 12 credits are to be chosen from GERM 300[6] and above.

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

30 Minor in Italian
30 credits in Italian of which at least 18 credits must be chosen from ITAL 301 and above.

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

30 Minor in Spanish
30 credits in Spanish chosen in consultation with the Department

NOTE: Upon consultation with the Department, advanced students may not be required to take any courses at the 200 level.

LINGUISTICS

The Department offers an Honours, a Major, and a Minor programme in Linguistics.

60 BA Honours in Linguistics

A student entering an Honours programme in Linguistics will normally take the following courses:
18 LING 200[6], 312[6], 372[3], 373[3]
18 LING 400[3], 401[3], 421[6], 431[6]
12 LING credits chosen at the 300 and 400 level
12 LING credits, or 12 credits chosen in consultation with the Department from the following: Latin, Greek, Russian, German, Spanish, Italian, French, English, Portuguese, TESL, Sociology, Psychology, Philosophy

42 BA Major in Linguistics
15 LING 200[6], 312[6], 372[3]
21 LING credits chosen in consultation with the Department at the 300 and 400 level
6 credits in either Linguistics or another subject chosen in consultation with the Department

30 Minor in Linguistics
6 LING 200[6]
24 credits in Linguistics

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

German

GERM 200 ***Introductory German: Intensive Course*** (6 credits)
This course provides a comprehensive introduction to the German language, completing the fundamental aspects of grammar in one term. This course covers the same material as GERM 201 and 202.
NOTE: Students who have received credit for GERM 201 or 202 or 210 or 211 may not take this course for credit.

GERM 201 ***Introductory German I*** (3 credits)
This course provides an introduction to the basic elements of German for the student with no knowledge of the language.
NOTE: Students who have received credit for GERM 200 or 210 or 211 may not take this course for credit.

GERM 202 ***Introductory German II*** (3 credits)
Prerequisite: GERM 201. The objective of this course is to complete the study of fundamental aspects of German grammar.
NOTE: Students who have received credit for GERM 200 or 210 or 211 may not take this course for credit.

GERM 220 ***Speaking German*** (6 credits)
The emphasis of this course is on speaking and understanding German. The course focuses on building vocabulary, developing basic conversational skills, and practising pronunciation.

GERM 240 ***Intermediate German: Intensive Course*** (6 credits)
Prerequisite: GERM 200 or 202. This course provides a review of German grammar in a single term and furnishes additional details not

dealt with in the introductory courses. It covers the same material as GERM 241 and 242. Practice is provided through readings, discussions, and composition.
NOTE: Students who have received credit for GERM 250 or 251 may not take this course for credit.

GERM 241 ***Intermediate German I*** (3 credits)
Prerequisite: GERM 200 or 202. This course provides a review of German grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for GERM 240 or 250 or 251 may not take this course for credit.

GERM 242 ***Intermediate German II*** (3 credits)
Prerequisite: GERM 241. This course is a continuation of GERM 241. It completes the review of the grammar and includes additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for GERM 240 or 250 or 251 may not take this course for credit.

UNLESS OTHERWISE INDICATED, ALL COURSES WITH NUMBERS 255 AND HIGHER WILL BE CONDUCTED IN GERMAN.

GERM 255 ***Translation I*** (6 credits)
Prerequisite: GERM 200 or 202. This course is designed to expand the student's working knowledge of the German language through translation from German. The translation of a variety of texts provides a review of the basic grammar and further experience of idiomatic and syntactical structures.

GERM 270 ***German Composition and Conversation*** (6 credits)
Prerequisite: GERM 200 or 202 or 220. This course is designed to review and broaden the command of the German language through oral and written practice. The course focuses on the student's stylistic skills in written German and on the improvement of spoken German in everyday situations.
NOTE: Students who have received credit for this topic under a GERM 299 number may not take this course for credit.

GERM 298 ***Selected Topics in German*** (3 credits)

GERM 299 ***Selected Topics in German*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

GERM 300 ***Advanced German*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course is intended to give the student increased fluency in and a firmer command of the German language. The course focuses on advanced grammatical problems, syntactical structures, and the use of idioms in spoken and written German.

GERM 305 ***Translation II*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course is a continuation of GERM 255 and deals with advanced problems and techniques of translating into German. The translation of a variety of texts concentrates on linguistic analysis, on specialized vocabulary, and on idiomatic expressions.

GERM 360 ***German Civilization*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course is designed to acquaint the student with the intellectual and cultural history of German-speaking nations as reflected in their writers.

GERM 398 ***Selected Topics in German*** (3 credits)

GERM 399 ***Selected Topics in German*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

GERM 400 ***German Literature from 800 to 1600*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course provides a study of the main characteristics of the German literary periods up to A.D. 1600 through the reading of representative texts.

GERM 410 ***Literature of the Classic Period*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course offers a study of German literature from the Enlightenment to Weimar Classicism (Goethe and Schiller) through the reading of representative works of different genres.

GERM 415 ***Literature of the Romantic Period*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course presents a detailed study of German Romanticism through the reading of representative literary works.

GERM 420 ***German Literature of the Nineteenth Century*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course provides a study of representative works of German post-Romanticism, realism and naturalism.

GERM 425 ***German Literature from 1900 to 1950*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course presents a study of German literature from the *fin de siècle* to the post-World War II period. A discussion of the literary works of German Expressionism, the literature of exile, and of National Socialist Germany is included.

GERM 430 ***Literature of the German-Speaking Countries since 1950*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course deals with the literature of the German-speaking countries from 1950 to the present. The main characteristics of the literary trends developed in both East and West Germany until reunification, as well as in Austria and Switzerland, are examined through representative works.

GERM 435 ***History of the German Theatre*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course examines the development of German drama from its religious origins to its secular forms in modern theatre. Representative works of the genre are discussed.

GERM 450 ***German Poetry from the Middle Ages to Modern Times*** (3 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course examines the development of German poetry from the Middle Ages to the present through the reading of representative texts.

GERM 452 ***German Literary Periods*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. In this course students undertake a comprehensive study of German literary periods from Old High German to the present. One major research paper is required.
NOTE: Students who have received credit for this topic under a GERM 499 number may not take this course for credit.

GERM 465 ***History of the German Language*** (6 credits)
Prerequisite: GERM 240 or 242, and 255 or 270. This course deals with the linguistic and historic development of the language from its Indo-European origins through Old and Middle High German to the standard language of today.

GERM 480 ***Tutorial I*** (3 credits)
Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 481 ***Tutorial II*** (3 credits)
Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 482 ***Tutorial III*** (3 credits)
Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 483 ***Tutorial IV*** (3 credits)
Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 490 ***Honours Essay Tutorial*** (3 credits)
Prerequisite: Honours status. This course provides the Honours candidate with the opportunity to prepare an extensive research essay, on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the German section.

GERM 498 ***Advanced Topics in German*** (3 credits)

GERM 499 ***Advanced Topics in German*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

Hebrew

HEBR 210 ***Introductory Course in Hebrew*** (6 credits)
This course is cross-listed with RELI 201.
A beginners' course in Hebrew, with readings of classical and modern texts.
NOTE: Students who have taken Hebrew at the CEGEP level, or whose schooling has been conducted in Hebrew, will not be admitted to this course.

HEBR 211 ***Introductory Course in Hebrew B*** (3 credits)
This course is cross-listed with RELI 201.
A beginners' course in Hebrew, with readings of classical and modern texts.
NOTE: Students who have taken Hebrew at the CEGEP level, or whose schooling has been conducted in Hebrew, will not be admitted to this course.

HEBR 250 ***Intermediate Hebrew*** (6 credits)
This course is cross-listed with RELI 202.
Prerequisite: RELI 201, HEBR 210, or permission of the Department. This course will include a comprehensive review of Hebrew grammar and syntax with readings of classical and modern Hebrew texts.

HEBR 251 ***Intermediate Hebrew B*** (3 credits)
This course is cross-listed with RELI 202. Prerequisite: RELI 201, HEBR 210, or permission of the Department. This course will include a comprehensive review of Hebrew grammar and syntax with readings of classical and modern Hebrew texts.

Italian

ITAL 200 ***Introductory Italian: Intensive Course*** (6 credits)
This course provides a comprehensive introduction to the Italian language, completing the fundamental aspects of grammar in one term. This course covers the same material as ITAL 201 and 202.
NOTE: Students who have received credit for ITAL 201 or 202 or 210 or 211 or 252 or 253 or 254 may not take this course for credit.

ITAL 201 ***Introductory Italian I*** (3 credits)
This course provides an introduction to the basic elements of Italian for the student with no knowledge of the language.
NOTE: Students who have received credit for ITAL 200 or 210 or 211 or 252 or 253 or 254 may not take this course for credit.

ITAL 202 ***Introductory Italian II*** (3 credits)
Prerequisite: ITAL 201. The objective is to complete the study of fundamental aspects of Italian grammar.
NOTE: Students who have received credit for ITAL 200 or 210 or 211 or 252 or 253 or 254 may not take this course for credit.

ITAL 240 ***Intermediate Italian: Intensive Course*** (6 credits)
Prerequisite: ITAL 200 or 202. This course provides a review of Italian grammar in one term and deals with additional details not covered in the introductory course. It covers the same material as ITAL 241 and 242. Practice is provided through readings, discussions, and composition.
NOTE: Students who have received credit for ITAL 241 or 242 or 250 or 251 or 252 or 253 or 254 may not take this course for credit.

ITAL 241 ***Intermediate Italian I*** (3 credits)
Prerequisite: ITAL 200 or 202. This course provides a review of Italian grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for ITAL 240 or 250 or 251 or 252 or 253 or 254 may not take this course for credit.

ITAL 242 ***Intermediate Italian II*** (3 credits)
Prerequisite: ITAL 241. This course is a continuation of ITAL 241. It completes the review of the grammar and provides additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for ITAL 240 or 250 or 251 or 252 or 253 or 254 may not take this course for credit.

UNLESS OTHERWISE INDICATED, ALL COURSES WITH NUMBERS 253 AND HIGHER WILL BE CONDUCTED IN ITALIAN.

ITAL 253 ***Italian for Dialect Speakers I*** (3 credits)
This course is designed for speakers of Italian dialects who wish to acquire training in standard Italian. Emphasis is placed on grammar, lexicon, sentence structure, and other fundamentals of good usage. Both oral and written expression are emphasized.
NOTE: Students who have received credit for ITAL 200 or 201 or 202 or 240 or 241 or 242 or 252 may not take this course for credit.

ITAL 254 ***Italian for Dialect Speakers II*** (3 credits)
Prerequisite: ITAL 253. This course is a continuation of ITAL 253. It presents additional material not covered in ITAL 253 and provides practice through short readings, discussions, and composition.
NOTE: Students who have received credit for ITAL 200 or 201 or 202 or 240 or 241 or 242 or 252 may not take this course for credit.

ITAL 256 ***Translation I*** (3 credits)
Prerequisite: ITAL 200 or 202 or 254. This course provides a review of the Italian grammar and introduces students to the fundamentals of translation.
NOTE: Students who have received credit for ITAL 255 may not take this course for credit.

ITAL 257 ***Translation II*** (3 credits)
Prerequisite: ITAL 256. This course continues the review of Italian grammar begun in ITAL 256 and uses selected short texts for translation into Italian.
NOTE: Students who have received credit for ITAL 255 may not take this course for credit.

ITAL 298 ***Selected Topics in Italian*** (3 credits)

ITAL 299 ***Selected Topics in Italian*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ITAL 301 ***Advanced Grammar and Composition I*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course is intended to give the student increased fluency in and a firmer command of the language.
NOTE: Students who have received credit for ITAL 300 may not take this course for credit.

ITAL 302 ***Advanced Grammar and Composition II*** (3 credits)
Prerequisite: ITAL 301. This course is a continuation of ITAL 301. It provides students with further practice in advanced grammar and composition.
NOTE: Students who have received credit for ITAL 300 may not take this course for credit.

ITAL 306 ***Advanced Translation I*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254 or 257. This course deals with idiomatic Italian usage and provides practice by means of translations into Italian of published material on a variety of topics.
NOTE: Students who have received credit for ITAL 305 may not take this course for credit.

ITAL 307 ***Advanced Translation II*** (3 credits)
Prerequisite: ITAL 306. This course is a continuation of ITAL 306. It deals with advanced problems and techniques of translation from Italian and into Italian.
NOTE: Students who have received credit for ITAL 305 may not take this course for credit.

ITAL 310 ***Survey of Italian Literature I*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course examines the major authors and trends of Italian literature from its origins to the end of the sixteenth century.

ITAL 311 ***Survey of Italian Literature II*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course examines the major authors and trends of Italian literature from the beginning of the seventeenth century to the present.

ITAL 365 ***Italian Civilization I*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course provides a survey of Italy's cultural and scientific achievements until the end of the sixteenth century. Attention is given to Italy's social, political, and economic life.
NOTE: Students who have received credit for ITAL 360 may not take this course for credit.

ITAL 366 ***Italian Civilization II*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course provides a survey of Italy's cultural and scientific achievements from the beginning of the seventeenth century to the present day. Attention is given to Italy's social, political, and economic life.
NOTE: Students who have received credit for ITAL 360 may not take this course for credit.

ITAL 398 ***Selected Topics in Italian*** (3 credits)

ITAL 399 ***Selected Topics in Italian*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

ITAL 410 ***Literary Criticism*** (3 credits)
Prerequisite: ITAL 310 and 311. This course is a survey of literary criticism from the Renaissance to the present; outstanding examples of representative authors are studied in detail. Emphasis is placed on modern critical theories.

ITAL 415 ***Dante I: Earlier Works*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. In this course selected passages of Dante's earlier works are read and analysed.

ITAL 416 ***Dante II: Divina commedia*** (3 credits)
Prerequisite: ITAL 415. This course undertakes an analysis of the *Divina commedia*.

ITAL 420 ***Petrarch and Early Italian Poetry*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course examines selected works of the *Scuola siciliana* and the *Dolce stil nuovo*. Petrarch's *Canzoniere* is read and analysed.

ITAL 421 ***Boccaccio and the Novella*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course examines the origin and evolution of the early Italian novella. Emphasis is placed on the *Decameron*.

ITAL 425 ***Fifteenth-Century Prose and Poetry*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course deals with the rise of Humanism in Italy. Representative prose writings, chivalresque and lyric poetry, especially the lyric poetry of Poliziano and Lorenzo de' Medici, are read and analysed.

ITAL 430 ***The Italian Renaissance*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course is designed to acquaint the student with the Italian Renaissance, with emphasis on Machiavelli's *Principe* and *La mandragola*.

ITAL 432 ***Ariosto*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course undertakes the study of *Orlando Furioso* and some of Ariosto's minor works.

ITAL 433 ***Tasso and Epic Poetry*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course presents a study of the work of Tasso, with special emphasis upon *La Gerusalemme liberata*, within the context of Counter-Reformation Italy.

ITAL 435 ***Seventeenth Century Prose and Poetry*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course provides students with an opportunity to

study representative scientific and literary texts. Emphasis is placed on Galileo, Sarpi, Marino, and Chiabrera.

ITAL 436 ***Eighteenth Century Prose and Poetry*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course examines selected philosophic and literary texts of Vico, Parini, and Alfieri.

ITAL 437 ***History of the Italian Theatre*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course provides a panoramic view of Italian theatre from its origins to the present. Emphasis is placed on Goldoni and Pirandello.

ITAL 439 ***Romanticism in Italy: The Early Nineteenth Century*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course examines the debate between neoclassicism and Romanticism and the link between Romanticism and the Risorgimento. Emphasis is placed on Monti, Foscolo, and Leopardi.

ITAL 442 ***Manzoni*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course undertakes a critical study of *I promessi sposi* and representative poetic and dramatic works of Manzoni.

ITAL 443 ***Nineteenth-Century Italian Literature after Manzoni*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course provides a study of representative works of the later nineteenth century, with emphasis on writers such as Verga, Carducci, and Pascoli.

ITAL 445 ***Twentieth-Century Italian Literature to 1945*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course acquaints students with the major literary trends in Italy from the beginning of the twentieth century to 1945. Emphasis is placed on writers such as D'Annunzio, Pirandello, Deledda, Ungaretti, and Montale.

ITAL 446 ***Italian Literature from Neo-Realism to the Present*** (3 credits)
Prerequisite: ITAL 240 or 242 or 254. This course undertakes the critical study of representative literary works from the end of World War II to the present.

ITAL 461 ***History of the Italian Language I*** (3 credits)
Prerequisite: ITAL 302. This course deals with the history of the Italian language from its origins to the end of the thirteenth century through the study of representative texts. Some attention is given to the other Romance languages.
NOTE: Students who have received credit for ITAL 460 may not take this course for credit.

ITAL 462 ***History of the Italian Language II*** (3 credits)
Prerequisite: ITAL 302. This course deals with the history of the Italian language from the beginning of the fourteenth century to the present day through the study of representative texts. Some attention is given to the other Romance languages and to Italian dialects.
NOTE: Students who have received credit for ITAL 460 may not take this course for credit.

ITAL 480 ***Tutorial I*** (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

ITAL 481 ***Tutorial II*** (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

ITAL 482 ***Tutorial III*** (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

ITAL 483 ***Tutorial IV*** (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

ITAL 490 ***Honours Essay Tutorial*** (3 credits)
Prerequisite: Honours status. This course provides the Honours candidate with the opportunity to prepare an extensive research essay, on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the Italian section.

ITAL 498 ***Advanced Topics in Italian*** (3 credits)

ITAL 499 ***Advanced Topics in Italian*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

Linguistics

LING 200 ***Introduction to Linguistic Science*** (6 credits)
Introduction to the principles of general

linguistics for beginners in the field. Basic phonology and morphology. Emphasis on synchronic linguistic analysis, with a brief examination of historical and comparative linguistics.

LING 298 ***Selected Topics in Linguistics*** (3 credits)

LING 299 ***Selected Topics in Linguistics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LING 300 ***Sociolinguistics*** (3 credits)
Prerequisite: LING 200, or permission of the Department. A study of the beliefs, interrelationships, and values of societal groups as reflected in language.

LING 312 ***Theory of Grammars*** (6 credits)
Prerequisite: LING 200, previously or concurrently, or permission of the Department. This course deals with the history and development of grammatical theory prior to Chomsky. Considerable emphasis is placed on traditional grammar, the school of de Saussure, and Bloomfieldian structuralism. The principles of historical linguistics and the development of semantic theory and Meaning-Structure Grammar are also examined.

LING 320 ***Semantics I*** (3 credits)
This course introduces the basic notions required for analysis of meaning within a theory of language. The central objective is the representation of the logical structure of natural language as a basis for explaining how competent users interpret words, phrases, and sentences. Readings focus on elements of grammatical structure, lexical content, and the context of utterance. Some contemporary works in linguistic semantics are critically examined.

LING 321 ***Semantics II*** (3 credits)
Prerequisite: LING 320, or permission of the Department. Theory of change. (Meillet, Wundt, Gustaf Sterne, Hans Sperber, Briel, Sturtevant). Classifications of changes of meaning: genetic, causal, functional. Changes of model and changes of syntax. The Port-Royal grammarians. Synaesthesia and pseudo-synaesthesia. Panchronistic statistical laws.

LING 330 ***Sanskrit*** (6 credits)
Prerequisite: LING 200, previously or concurrently, or permission of the Department. An accelerated introduction to the fundamentals of Sanskrit grammar through the extensive reading of texts, first in transliteration and later in devanāgarī. Particular attention is given to the language of the Rig-Veda.

LING 372 ***Descriptive and Instrumental Phonetics*** (3 credits)
Description of speech sounds in articulatory terms. Identification and description of sounds that occur outside the Indo-European family of languages. Description of speech sounds as to their acoustic qualities: frequency, amplitude, pitch, stress. Interpretation of sound spectrograms.

LING 373 ***Phonological Analysis*** (3 credits)
Prerequisite: LING 200 and/or 372, or permission of the Department. The fundamentals of distinctive-feature analysis as developed by Jakobson, Chomsky, and Halle. Theoretical concepts and notational techniques are emphasized. Extensive training in data analysis and rule writing.

LING 398 ***Selected Topics in Linguistics*** (3 credits)

LING 399 ***Selected Topics in Linguistics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LING 400 ***Theory of Generative Grammar I*** (3 credits)
Prerequisite: LING 200 and 312. Chomsky's extended standard theory. Phrase-markers and phrase-structure rules; x-bar syntax; the lexicon; WH-movement, though-movement, topicalization, and VP-preposing.

LING 401 ***Theory of Generative Grammar II*** (3 credits)
Prerequisite: LING 400, or equivalent. Subject raising; reflexive interpretation; structure-preserving, trace, and cyclic principles; constraints; fillers; the binding theory and current developments.

LING 421 ***Non-Indo-European Structures*** (6 credits)
Prerequisite: LING 200, or permission of the Department. This course is intended to give the student an in-depth acquaintance with the structures of several languages differing markedly in their nature from Indo-European. Possible areas of study might be Eskimo, Finnish, Japanese, Swahili, Turkish, some Amerindian or Malayo-Polynesian language, etc. As a general rule, only four languages are investigated in a particular year.

LING 431 ***Comparative Indo-European Linguistics*** (6 credits)
Prerequisite: LING 200, or permission of the Department. Through a comparative study of the phonology of the various branches of the Indo-European language family (Indo-Iranian, Hellenic, Italic, Germanic, Slavic, Baltic, etc.), this course familiarizes the student with the techniques used in linguistic reconstruction. Emphasis is given to the development and differentiation of languages through time.

LING 436 ***Advanced Indo-European Studies*** (3 credits)
Prerequisite: LING 431, previously or concurrently. Detailed study of the synchronic and diachronic grammar of an Indo-European dialect essential to the reconstruction of the protolanguage. Extensive readings are undertaken in both original texts and in scholarly contributions to their elucidation. Emphasis is placed on current issues and research in the field.

LING 437 ***Problems in Indo-European Comparative Grammar*** (3 credits)
Prerequisite: LING 431, previously or concurrently. This course explores one or more areas of Indo-European comparative grammar of particular interest in current research. Extensive reading in the scholarly literature is undertaken with emphasis on the principles by which hypotheses in historical linguistics can be framed and the criteria for testing such hypotheses.

LING 441 ***Comparative Romance Linguistics*** (6 credits)
Prerequisite: LING 200 and knowledge of a Romance language, or equivalent, or permission of the Department. A study of the evolution of Classical into Vulgar Latin and its subsequent development into modern Romance dialects, such as Portuguese, Castilian, Catalan, Occitanian, French, Italian, Rumansch, Romanian, etc.

LING 451 ***Modern Literary Arabic*** (6 credits)
Prerequisite: LING 200, or equivalent, or permission of the Department. A one-year course designed to give beginning students a thorough understanding of the linguistic structure of modern Arabic in its universally standard form. Some attention is also given to the Afro-Asiatic language family in general and to the Semitic branch in particular.
NOTE: Students whose first language is Arabic, or who have received a substantial part of their education in Arabic, are not permitted to take this course for credit.

LING 461 ***Hittite*** (3 credits)
Prerequisite: LING 330 or 431, previously or concurrently, or permission of the Department. The fundamentals of Hittite grammar are presented through the extensive reading of texts, both in transliteration and cuneiform. Considerable attention is given to problems of comparative grammar.

LING 498 ***Advanced Topics in Linguistics*** (3 credits)

LING 499 ***Advanced Topics in Linguistics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

Modern Languages

The following courses give instruction in languages and cultures not normally covered by the Department. Any or all of them may be offered when a specific ethnic community has persuaded the University of its interest in seeing them put on, and of its willingness to support them.

MODL 298 ***Special Topics in Modern Languages*** (3 credits)

MODL 299 ***Special Topics in Modern Languages*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

MODL 398 ***Special Topics in Modern Languages*** (3 credits)

MODL 399 ***Special Topics in Modern Languages*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

MODL 498 ***Advanced Topics in Modern Languages*** (3 credits)

MODL 499 ***Advanced Topics in Modern Languages*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

Portuguese

PORT 400 ***Portuguese Language and Literature*** (6 credits)
Prerequisite: SPAN 257, or equivalent, and any six credits at the 400 level in Spanish. A course designed for advanced Spanish language students. Readings in Portuguese begin as early as the second week of class.
NOTE: Students whose first language is Portuguese, or who have received a substantial part of their education in Portuguese, are not permitted to take this course for credit.

Russian

RUSS 330 ***The Structure of Russian*** (6 credits)
Prerequisite: No previous knowledge of Russian required. An accelerated but thorough introduction to the grammatical structure of modern Russian. The emphasis is on reading. The course aims to provide students with the ability to read scholarly and literary prose with the aid of a dictionary. Intended primarily for students who need Russian as an aid to research and for students of Linguistics.

RUSS 400 ***Advanced Russian Grammar and Readings*** (6 credits)
Prerequisite: RUSS 330, or equivalent. This course is a continuation of RUSS 330. Further readings with emphasis on scientific and scholarly prose. Considerable attention is devoted to advanced points of grammar, vocabulary, stylistics, and translation.

Spanish

SPAN 200 ***Introductory Spanish: Intensive Course*** (6 credits)
This course provides a comprehensive introduction to the Spanish language, completing the fundamental aspects of grammar in one term. This course covers the same material as SPAN 201 and 202.
NOTE: Students who have received credit for SPAN 201 or 202 or 210 or 211 may not take this course for credit.

SPAN 201 ***Introductory Spanish I*** (3 credits)
This course provides an introduction to the basic elements of Spanish for the student with no knowledge of the language.
NOTE: Students who have received credit for SPAN 200 or 210 or 211 may not take this course for credit.

SPAN 202 ***Introductory Spanish II*** (3 credits)
Prerequisite: SPAN 201. The objective of this course is to complete the study of fundamental aspects of Spanish grammar.
NOTE: Students who have received credit for SPAN 200 or 210 or 211 may not take this course for credit.

UNLESS OTHERWISE INDICATED, ALL COURSES WITH NUMBERS 240 AND HIGHER WILL BE CONDUCTED IN SPANISH.

SPAN 240 ***Intermediate Spanish: Intensive Course*** (6 credits)
Prerequisite: SPAN 200 or 202. This course provides a review of Spanish grammar in a single term and furnishes additional details not dealt with in the introductory courses. It covers the same material as SPAN 241 and 242. Practice is provided through readings, discussions, and composition.
NOTE: Students who have received credit for SPAN 241 or 242 or 250 or 251 may not take this course for credit.

SPAN 241 ***Intermediate Spanish I*** (3 credits)
Prerequisite: SPAN 200 or 202. This course provides a review of Spanish grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for SPAN 240 or 250 or 251 may not take this course for credit.

SPAN 242 ***Intermediate Spanish II*** (3 credits)
Prerequisite: SPAN 241. This course is a continuation of SPAN 241. It completes the review of the grammar and includes additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.
NOTE: Students who have received credit for SPAN 240 or 250 or 251 may not take this course for credit.

SPAN 256 ***Translation I*** (3 credits)
Prerequisite: SPAN 200 or 202. This course provides a review of Spanish grammar and introduces students to the principles of translation.
NOTE: Students who have received credit for SPAN 255 may not take this course for credit.

SPAN 257 ***Translation II*** (3 credits)
Prerequisite: SPAN 256. This course continues the review of Spanish grammar begun in SPAN 256 and uses selected short texts for translation into Spanish.
NOTE: Students who have received credit for SPAN 255 may not take this course for credit.

SPAN 298 ***Special Topics in Spanish*** (3 credits)

SPAN 299 ***Special Topics in Spanish*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SPAN 301 ***Advanced Grammar and Composition I*** (3 credits)
Prerequisite: SPAN 240 or 242. This course is designed to help students understand some advanced aspects of Spanish grammar and to provide practice in the correct and effective writing of Spanish.

SPAN 302 ***Advanced Grammar and Composition II*** (3 credits)
Prerequisite: SPAN 301. This course continues the study of advanced aspects of Spanish grammar and provides practice in the correct and effective writing of Spanish by means of types of composition such as summary, description, narration, argumentation, and essay.

SPAN 304 ***Introduction to the Study of Hispanic Literature*** (3 credits)
Prerequisite: SPAN 240 or 242. This course introduces students to fundamental concepts necessary for the study of Hispanic literature. It deals with the relation between literature and other disciplines and presents some basic tools and techniques of research and criticism as related to Hispanic literature. Students are encouraged to take this course concurrently with SPAN 310 or 311 or 320 or 321.
NOTE: Students who have received credit for this topic under a SPAN 298 number may not take this course for credit.

SPAN 306 ***Advanced Translation I*** (3 credits)
Prerequisite: SPAN 240 or 242. This course deals with idiomatic Spanish usage and provides practice by means of a number of translations into Spanish of published material on a variety of topics.
NOTE: Students who have received credit for SPAN 305 may not take this course for credit.

SPAN 307 ***Advanced Translation II*** (3 credits)
Prerequisite: SPAN 306. This course continues the practice of idiomatic Spanish through the translation into Spanish of published material on a variety of topics. Special attention is given to texts from the world of business.
NOTE: Students who have received credit for SPAN 305 may not take this course for credit.

SPAN 310 ***Survey of Spanish Literature I*** (3 credits)
Prerequisite: SPAN 240 or 242. This course provides a panoramic view of Spanish literature as produced in the Peninsula from the twelfth to the seventeenth century.

SPAN 311 ***Survey of Spanish Literature II*** (3 credits)
Prerequisite: SPAN 240 or 242. This course provides a panoramic view of Spanish literature as produced in the Peninsula from the eighteenth to the twentieth century.

SPAN 320 ***Survey of Spanish-American Literature I*** (3 credits)
Prerequisite: SPAN 240 or 242. This course provides a panoramic view of Spanish-American literature from the colonial period to the end of the nineteenth century.

SPAN 321 ***Survey of Spanish-American Literature II*** (3 credits)
Prerequisite: SPAN 240 or 242. This course provides a panoramic view of Spanish-American literature of the twentieth century.

SPAN 362 ***Civilization of Mexico, the Central American Region and the Spanish Caribbean*** (3 credits)
Prerequisite: SPAN 240 or 242. This course is designed to acquaint the student with the cultural achievements of the region within an historical framework. Emphasis is on Mexico and Cuba; the major achievements of the Dominican Republic, Venezuela, Colombia, and the Central American countries are highlighted.
NOTE: Students who have received credit for SPAN 361 may not take this course for credit.

SPAN 363 ***Civilization of the Southern Cone and the Andean Region*** (3 credits)
Prerequisite: SPAN 240 or 242. This course is designed to acquaint the student with the cultural achievements of the region within an historical framework. Emphasis is on Argentina, Peru, and Chile; the major achievements of Uruguay, Paraguay, Ecuador, and Bolivia are highlighted.
NOTE: Students who have received credit for SPAN 361 may not take this course for credit.

SPAN 365 ***The Civilization of Spain*** (3 credits)
Prerequisite: SPAN 240 or 242. This course undertakes a study of important historical events and figures of Spain from the Middle Ages to the present. It also provides an introduction to Spanish arts and cultural achievements.
NOTE: Students who have received credit for SPAN 360 may not take this course for credit.

SPAN 370 ***Structure of the Spanish Language*** (3 credits)
Prerequisite: SPAN 240 or 242. This course provides an overview of the linguistic structure of the Spanish language. Topics include phonetics, morphology, syntax, and semantics.
NOTE: Students who have received credit for this topic under a SPAN 398 number may not take this course for credit.

SPAN 398 ***Special Topics in Spanish*** (3 credits)

SPAN 399 ***Special Topics in Spanish*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SPAN 401 ***Effective Written Communication in Spanish*** (3 credits)
Prerequisite: SPAN 301. This course provides an opportunity for students to perfect their ability to write Spanish clearly and effectively for professional purposes, with encouragement of direct contact with Hispanic cultural institutions.

SPAN 403 ***Methods of Literary Analysis*** (3 credits)
Prerequisite: SPAN 304 or 311 or 321. This course presents the student with some of the fundamental concepts of twentieth century literary theory and criticism such as formalism, Marxism, structuralism, semiotics, psychoanalytical and feminist approaches. Practice in criticism is applied to Hispanic texts.
NOTE: Students who have received credit for SPAN 303 may not take this course for credit.

SPAN 406 ***Medieval Literature*** (3 credits)
Prerequisite: SPAN 310. This course examines Castilian prose and poetry until about 1500. Texts analysed include selections from *El libro de buen amor*, *La Celestina*, as well as the works of authors such as the Marqués de Santillana, Juan de Mena, and Juan Boscán.

SPAN 411 ***Golden Age Prose*** (3 credits)
Prerequisite: SPAN 310. This course provides critical study of the novel and other narrative didactic genres of the sixteenth and seventeenth centuries through the analysis of representative works. Emphasis is on Cervantes' contribution to the novel.

SPAN 412 ***Golden Age Drama and Poetry*** (3 credits)
Prerequisite: SPAN 310. This course examines the development of Spanish verse drama of the sixteenth and seventeenth centuries through the analysis of representative authors such as Lope de Vega and Tirso de Molina. The work of non-dramatic poets such as Góngora is also considered.

SPAN 416 ***Peninsular Neoclassicism and Romanticism*** (3 credits)
Prerequisite: SPAN 240 or 242. This course presents the literature of eighteenth-century neoclassicism and the rules of its art through a study of representative authors, such as Jovellanos and Moratín. Nineteenth-century Romantic poetry and drama are studied through the works of representative authors such as Espronceda, Zorrilla, and Bécquer.

SPAN 417 ***Peninsular Realism and Naturalism*** (3 credits)
Prerequisite: SPAN 240 or 242. This course presents the development of the novel during the Realist and Naturalist periods in Spain, through the analysis of representative authors such as Pardo Bazán, Clarín, Valera, and Pérez Galdós.

SPAN 420 ***The Generation of 1898*** (3 credits)
Prerequisite: SPAN 240 or 242. Through a study of authors such as Unamuno, Baroja, Azorín, Machado, and Valle-Inclán, this course examines the Spanish crisis of 1898 and its issues, such as the Spanish national character and the Castilian landscape.

SPAN 421 ***Twentieth-Century Spanish Literature to the Civil War*** (3 credits)
Prerequisite: SPAN 240 or 242. This course presents twentieth-century Spanish literature up to 1939. Special attention is given to García Lorca and the Group of 1927.

SPAN 422 ***Twentieth-Century Spanish Literature after the Civil War*** (3 credits)
Prerequisite: SPAN 240 or 242. This course presents literature of the post-civil war period as well as some of the later "experimental" novels.

SPAN 423 ***Twentieth-Century Spanish-American Literature before 1960*** (3 credits)
Prerequisite: SPAN 240 or 242. This course examines the literary production in Spanish America during the first half of this century through representative works of some of the major writers of the era, such as Gallegos, Bombal, Borges, Neruda, and Azuela.

SPAN 424 ***Twentieth-Century Spanish-American Literature from 1960 to the Present*** (3 credits)
Prerequisite: SPAN 240 or 242. This course examines the phenomenon of *el boom* in Spanish-American literature and its innovative aspects in authors such as García Márquez, Fuentes, Vargas Llosa, Rulfo, Puig, and Allende.

SPAN 430 ***Women and Hispanic Literature*** (3 credits)
Prerequisite: SPAN 311 or 321 or 403. This course examines the relationship between women and literature in Spain and Spanish America, through issues such as the image of women in Hispanic literature, women as fictional characters, and women as writers.
NOTE: Students who have received credit for SPAN 498C may not take this course for credit.

SPAN 441 ***Spanish-American Romanticism*** (3 credits)
Prerequisite: SPAN 240 or 242. This course examines the development of post-Independence literature of Spanish America until the end of the nineteenth century. Emphasis is placed on identifying distinctively Spanish-American literary traits within the Romantic context.

SPAN 442 ***Spanish-American Modernism and Vanguardism*** (3 credits)
Prerequisite: SPAN 240 or 242. This course presents the stages of Modernism and Vanguardism through a study of representative works of authors such as Martí, Darío, Mistral, Neruda, and Paz.

SPAN 450 ***The Spanish-American Short Story*** (3 credits)
Prerequisite: SPAN 240 or 242. This course presents the Spanish-American short story from the thematic, historical, and theoretical perspectives. Representative authors include Borges, Cortázar, Garcia Márquez, and Valenzuela.
NOTE: Students who have received credit for SPAN 498G may not take this course for credit.

SPAN 461 ***History of the Spanish Language*** (3 credits)
Prerequisite: SPAN 310 or 370. This course provides a study of the development of the Spanish language from earliest times to the present. Consideration is given to the language in the Americas.
NOTE: Students who have received credit for this topic under a SPAN 498 number may not take this course for credit.

SPAN 464 ***Issues in Spanish-American Civilization*** (3 credits)
Prerequisite: SPAN 362 or 363. This course examines the current status of the issues that have shaped Spanish-American culture, such as the native peoples' question, land reform, religious institutions, and the search for identity. It provides an opportunity for students to work in an Hispanic cultural context, as emphasis is placed on research projects that include interviews, oral presentations and reports.

SPAN 480 ***Tutorial I*** (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, to meet the student's individual needs.

SPAN 481 ***Tutorial II*** (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, to meet the student's individual needs.

SPAN 482 ***Tutorial III*** (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, to meet the student's individual needs.

SPAN 483 ***Tutorial IV*** (3 credits)
Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, to meet the student's individual needs.

SPAN 490 ***Honours Essay Tutorial*** (3 credits)
Prerequisite: Honours status. This course provides the Honours candidate with the opportunity to prepare an extensive research essay, on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the Spanish section.

SPAN 498 ***Advanced Topics in Spanish*** (3 credits)

SPAN 499 ***Advanced Topics in Spanish*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.220 PHILOSOPHY

Faculty

Chair
MURRAY C. CLARKE, *Associate Professor*

Professors
STANLEY G. FRENCH
ERNEST JOOS
DESIREE PARK
SHEILA MASON
JOHN McGRAW
VINCENT McNAMARA
DENNIS O'CONNOR
JACK ORNSTEIN
MARTIN REIDY
VLADIMIR ZEMAN

Associate Professors
EDMUND EGAN
CHRISTOPHER B. GRAY

Assistant Professor
ANDREW WAYNE

Location

Loyola Campus
Vanier Extension, Room: VE 227
(514) 848-2510

Sir George Williams Campus
Annex PR, Room: 202
(514) 848-2500

Department Objectives

The central mission of the Department is to contribute to the development of a critical, informed, and open mind. Classes and scholarship within the Department therefore both concentrate on and extend beyond the principal philosophical traditions that have influenced Western thought.
Undergraduate courses provide a sound general education while encouraging students to follow related interests, such as political science, mathematics, or medicine. Specialization and Honours programmes prepare students for graduate studies.

Programmes

The Philosophy Department offers a number of programmes of study which include: Honours, Specialization, Major, Minor, and certain joint programmes. Double Majors programmes are also offered in consultation with other departments. The Philosophy Department should be consulted for information concerning these programmes. Seminars and tutorials are offered mainly for students in a programme in Philosophy. In addition, courses are offered to students with a general or specific interest in Philosophy.
Students enrolled in Philosophy programmes are required to confirm their status with the Department during the second week of lectures of each year.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Philosophy
Stage I
9 PHIL 232[3], 263[3], 265[3]
12 PHIL elective credits at the 200 level or higher, among which either PHIL 212[6] or 214[3] is required*
Stage II
6 PHIL 370[6]
9 PHIL elective or cognate credits from the 300 level or higher*
Stage III
15 PHIL 430[3], 463[3], 465[3], 473[6]
9 PHIL elective or cognate credits from the 400 level*

**PHIL elective or cognate credits to be chosen in consultation with the Department.*
Contemporary and Medieval Philosophy are recommended.
NOTE: Students must apply to the departmental Honours adviser for formal admission to Honours programmes. The application is usually made after completion of the first-year courses.

60 BA Specialization in Philosophy
Stage I
9 PHIL 232[3], 263[3], 265[3]
12 PHIL elective credits at the 200 level or higher, among which either PHIL 212[6] or 214[3] is required*
Stage II
6 PHIL 370[6]
9 PHIL elective or cognate credits from the 300 level or higher*
Stage III
6 PHIL 473[6]
18 PHIL elective or cognate credits from the 400 level*

**PHIL elective and cognate credits to be chosen in consultation with the Department.*

36 BA Major in Philosophy
Stage I
9 PHIL 232[3], 263[3], 265[3]
9 PHIL elective credits at the 200 level or higher, among which either PHIL 210[3] or 212[6] or 214[3] is required*

Stage II
6 PHIL 370[6]
Stage III
6 PHIL 473[6]
6 PHIL elective credits from the 300 level or higher*

**PHIL elective credits to be chosen in consultation with the Department.*

24 Minor in Philosophy
6 Chosen from PHIL 232[3], 263[3], 265[3]
6 PHIL elective credits at the 200 level or higher
12 PHIL elective credits from the 300 level or higher

48 BA Major in Political Philosophy
18 Chosen from POLI 270[6], 273[3], 370[6], 371[3], 372[6], 373[3], 470[6]; CLAS 240[3]/HIST 223[3], CLAS 341[3]/HIST 323[3], CLAS 242[3]/HIST 225[3], CLAS 343[3]/HIST 327[3]
9 PHIL 232[3] and PHIL 210[3] or 212[6] or 214[3], and PHIL credits chosen from 200 level or higher
9 PHIL 341[6] or 342[3]; and PHIL credits chosen from PHIL 324[3], 330[6], 343[3], 344[3], 345[3], 352[3], 430[3]
12 PHIL credits chosen from 370[6], 470[6], 473[6], 474[6]

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

PHIL 201 ***Problems of Philosophy*** (3 credits)
This course is designed for students who wish to be acquainted with philosophy through problems rather than through the historical approach. Methods used in philosophy are discussed and topics, such as the existence of God, the mind-body problem, freedom and determinism, rights and duties, are used to illustrate philosophical approaches.
NOTE: This course may not be taken for credit by students who have taken PHIL 202 at Concordia; CEGEP students who have been exempted from PHIL 202 may take PHIL 201 for credit with the permission of the Department.

PHIL 202 ***Introduction to Philosophy*** (6 credits)
A study of basic questions in the major areas of philosophy, and the classical attempts to answer them.
NOTE: This course may not be taken for credit with PHIL 201 at Concordia.

PHIL 210 ***Critical Thinking*** (3 credits)
This course is designed to help students to think more clearly and critically and to improve their ability to present, defend, and evaluate arguments. Topics may include the nature of definition, validity and truth, formal and informal fallacies. This course covers that part of the content of PHIL 212 which is especially helpful to students who need to evaluate arguments set out in ordinary language.
NOTE: Students who have received credit for PHIL 212 or 223 may not take this course for credit.

PHIL 212 ***Introduction to Logic*** (6 credits)
This course provides a thorough introduction to the study of inference. The student studies the role of argument in language, the deductive systems of sentential and predicate logic, and the theory of inductive inference. This course includes a gradual transition from the natural language arguments studied also in PHIL 210, to the symbolic arguments studied also in PHIL 214.
NOTE: Students who have received credit for PHIL 210, 214, 223, 224, and 226 may not take this course for credit.

PHIL 214 ***Deductive Logic*** (3 credits)
This course presents the modern symbolic systems of sentential and predicate logic. Students will transcribe English sentences into a logical form, analyse the concepts of logical truth, consistency, and validity, as well as learn to construct derivations in each system. This course covers that part of the content of PHIL 212 which is indispensable to graduate studies in philosophy and to the reading of much current professional literature.
NOTE: This course may not be taken for credit by students who have taken PHIL 212.

PHIL 216 ***Introduction to the Philosophy of Language*** (3 credits)
This course provides an introduction to the main problems in the philosophy of language, concerned with the analysis of the concepts of meaning, reference, truth, necessity.

PHIL 220 ***Methods of Enquiry*** (3 credits)
A study of the methods and structure of basic types of organized knowledge: mathematics, science, history, and normative disciplines. This course discusses crucial concepts in scientific methodology, such as the axiomatic system, the hypothetico-deductive method, and scientific explanation.
NOTE: Students who have received credit for PHIL 228 may not take this course for credit.

PHIL 232 ***Introduction to Ethics*** (3 credits)
A study of the principles underlying moral conduct with reference to classical and contemporary positions.
NOTE: Students who have received credit for PHIL 241 may not take this course for credit.

PHIL 234 ***Business Ethics*** (3 credits)
The purpose of this course is to elucidate the key ethical notions with reference to the business world. The intention is to make students aware of situations in which ethical implications arise, rather than to impose specific rules.
NOTE: Students who have received credit for PHIL 242 may not take this course for credit.

PHIL 235 ***Biomedical Ethics*** (3 credits)
This course is a study of the moral and legal norms involved in medical issues, such as health care priorities; euthanasia; fertility control and abortion, protection of the incapable; preventive medicine; problems of physician and patient relationships; human experimentation; genetic engineering; and behaviour modification.
NOTE: Students who have received credit for PHIL 248 may not take this course for credit.

PHIL 244 ***Social and Political Philosophy*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. This course treats of the individual in relation to the state and society through the reading and discussion of selected texts. Problems treated: political authority, its sources and varieties; the limits of political authority; classical images of humanity; personality and society; the paradox of social control.

PHIL 245 ***Philosophy and Society*** (3 credits)
The purpose of this course is to introduce students to the philosophical treatment of social problems. Examples would include conceptions of the person as individual and as citizen, as free and as determined, as well as conceptions of the state and of the community.

PHIL 247 ***Philosophy of Feminism*** (3 credits)
An introduction to some of the central issues in contemporary philosophy of feminism. Discussion of the key arguments in feminist epistemology, feminist ethics, and sex and gender studies from a variety of perspectives.

PHIL 250 ***Philosophical Anthropology*** (6 credits)
A study of representative classical and contemporary positions on human nature, action, and life. Such topics as knowledge, affectivity, freedom, and person are treated.
NOTE: Students who have received credit for PHIL 240 may not take this course for credit.

PHIL 252 ***Human Identity*** (3 credits)
A critical examination of some theories of human identity, including reference to male and female identity, the unity of self, and transcendence of self. Works are selected from the history of philosophy, literature, and the social sciences.
NOTE: Students who have received credit for PHIL 230 may not take this course for credit.

PHIL 255 ***Philosophy of Leisure*** (3 credits)
This course examines philosophical problems relating to such issues as leisure, recreation, labour, time, and fulfilment. The aim is to stimulate the student to think critically about the goals of individuals and of society as they concern these issues. The course is of interest to students in Recreation and Leisure Studies and to others interested in the problems of using free time to best advantage.

PHIL 263 ***Introduction to Epistemology*** (3 credits)
An introduction to the basic concepts and problems in epistemology, including belief, knowledge, scepticism, perception, and intentionality.

PHIL 265 ***Introduction to Metaphysics*** (3 credits)
An introduction to the basic topics in metaphysics, such as substance, essence, existence, matter, form, causation, action, being.

PHIL 266 ***Introduction to Philosophy of Religion*** (3 credits)
This course examines the classical arguments for the existence of God. Course content includes the nature of faith and of religious experience, as well as the nature of religious language.
NOTE: Students who have received credit for PHIL 246 may not take this course for credit.

PHIL 270 ***Philosophical Classics*** (6 credits)
A critical discussion of selected philosophical classics. Readings are chosen from Plato, Aristotle, Descartes, Hume, Kant, and one recent or contemporary philosopher.
NOTE: Students who have received credit for PHIL 211 may not take this course for credit.

PHIL 285 ***Non-Western Philosophy*** (3 credits)
This course introduces the student to the philosophical activities of non-Western cultures. The particular focus differs from year to year.

PHIL 298 ***Introductory Topics in Philosophy*** (3 credits)

PHIL 299 ***Introductory Topics in Philosophy*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

PHIL 314 ***Intermediate Logic: Metatheory*** (3 credits)
Prerequisite: PHIL 212 or 214, or permission of the Department. This course presents the basic concepts of metalogic, including mathematical

induction, soundness and completeness, decidability.
NOTE: Students who have received credit for PHIL 323 may not take this course for credit.

PHIL 315 ***Intermediate Logic: Themes and Problems*** (3 credits)
Prerequisite: PHIL 212 or 214, or permission of the Department. The subject of this course varies from offering to offering among the following possible studies: modal logic, probabilistic logic, many-valued logic, relevance logic, and historical themes in logic.
NOTE: Students who have received credit for PHIL 321 may not take this course for credit.

PHIL 319 ***Philosophy of Communication*** (3 credits)
This course is concerned with a philosophical analysis of the foundations of communication acts: linguistic and non-linguistic, cognitive and affective.
NOTE: Students who have received credit for PHIL 350 may not take this course for credit.

PHIL 324 ***Philosophy of Social Science*** (3 credits)
Prerequisite: Three credits in Philosophy or 12 credits in a social science department, or permission of the Department. Philosophical examination of the structure and methodology of the social sciences.
NOTE: Students who have received credit for PHIL 346 may not take this course for credit.

PHIL 326 ***Philosophical Psychology*** (3 credits)
A critical examination of the explanation of human behaviour and the self in the light of new developments in philosophy and psychology. Detailed studies of selected problems such as motives, intention, the concept of person, choice, reason, freedom, purpose, and action.
NOTE: Students who have received credit for PHIL 338 may not take this course for credit.

PHIL 327 ***Artificial Intelligence*** (3 credits)
Prerequisite: Three credits in Philosophy or Computer Science. The purpose of this course is to explore the analogy between mental activity and the operation of computers or "electronic brains", with a view to answering the question: Can machines think? Such topics as the following are treated: the concept of the Turing machine; the Turing test of intelligence; the functionalist theory of the mind; the nature of creativity; and the alleged implications of Gödel's incompleteness theorem.
NOTE: Students who have received credit for PHIL 354 may not take this course for credit.

PHIL 328 ***Conceptual Revolutions in Science I*** (3 credits)
This course will study the philosophical implications of one or more major scientific revolutions, such as the advent of Copernicus and Galileo, the Newtonian revolution, the Darwinian revolution, the discovery of the paradoxes of logic and set theory, the discovery of relativity theory and quantum mechanics.

PHIL 329 ***Conceptual Revolutions in Science II*** (3 credits)
This course will study the philosophical implications of the nature of scientific theories, and the process of scientific change.

PHIL 330 ***Problems in Moral Philosophy*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. Problems in moral philosophy, with topics to be announced. This seminar conducts the students through a series of problems on moral topics.
NOTE: Students who have received credit for PHIL 362 may not take this course for credit.

PHIL 333 ***Philosophical Ideas in Literature*** (3 credits)
Prerequisite: Three credits in Philosophy, or permission of the Department. An approach to philosophical ideas in literature through a comparison of authors. This could involve authors from different historical time frames, and different cultural world views, or elaborate different perspectives of a single author.

PHIL 339 ***Aesthetics*** (3 credits)
Prerequisite: Three credits in Philosophy, or permission of the Department. A survey of classical aesthetic theory in Western philosophy, with particular attention to major developments in the modern and contemporary periods.
NOTE: Students who have received credit for PHIL 353 may not take this course for credit.

PHIL 341 ***Political Philosophy*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. This course concentrates on the theoretical foundations of communism, fascism, and democracy through the reading and discussion of selected texts.

PHIL 342 ***Political Philosophy*** (3 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. Critical analysis of contemporary political-philosophical concepts, such as tolerance, violence, separatism, racism, and the nationalism of visible minorities.

PHIL 343 ***Philosophy of Law: General Jurisprudence*** (3 credits)
A philosophical study of natural law, legal positivist, and legal realist replies to the question of what law is. Contemporary and classical replies are criticized and are applied to cases. The associated issues of legal moralism, legal justice, legal obligation and its limits, and legal reasoning are treated.
NOTE: Students who have received credit for PHIL 357 may not take this course for credit.

PHIL 344 ***Law, Liberty, and Human Rights*** (3 credits)
In this course, the student examines several perspectives from which the problem of the relation between law and morality may be treated. Conflicting concepts of law, morality, and the relation of the individual to society are discussed. The problem of authority is examined in relation to issues of civil liberties, civil rights, and the social basis of legal conflicts.

PHIL 345 ***Legal Philosophy: Legal Rights and Duties*** (3 credits)
A philosophical study of the nature, sources, and functions of rights and duties. Attention is given to the particular rights associated with contract and property, and their abuse; to duties arising by law alone; to excuses and justifications for failure to fulfil duties; and to enforcement, punishment, and compromise.
NOTE: Students who have received credit for PHIL 358 may not take this course for credit.

PHIL 352 ***Philosophy of History*** (3 credits)
Prerequisite: Six credits in History, or permission of the Department. An analysis of the nature of historical knowledge and explanation is followed by a study of classical and contemporary attempts to elucidate the meaning of history. Authors discussed include Augustine, Vico, Kant, Hegel, Marx, Spengler, Popper, Toynbee, Arendt.

PHIL 355 **Philosophy of Culture** (3 credits)
Prerequisite: Three credits in Philosophy, or permission of the Department. This course entails a philosophical critique of contemporary culture, stressing such issues as identity crisis, the weakening of structures of orthodoxy, meditation and humour in relation to the vita activa, work in relation to labour, and the socio-cultural manifestation of value crisis.
NOTE: Students who have received credit for PHIL 348 may not take this course for credit.

PHIL 356 ***Philosophy of Education*** (3 credits)
An examination of philosophical principles underlying educational theories and of the problems arising from the practical implementation of those theories.
NOTE: Students who have received credit for PHIL 349 may not take this course for credit.

PHIL 359 ***Contemporary Theories of Love*** (6 credits)
Prerequisite: Three credits in Philosophy, or permission of the Department. A two-semester topical analysis of love and attendant phenomena, with special emphasis on their metaphysical, epistemological, psychological, aesthetic, social, theological, and linguistic dimensions. The classes are conducted on a lecture-seminar basis.
NOTE: Students who have received credit for PHIL 340 may not take this course for credit.

PHIL 363 ***Epistemology*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. A study of characteristic problems in epistemology, with particular emphasis on their historical and systematic contexts. The concepts analysed include fundamental questions in the empirical sciences.
NOTE: Students who have received credit for PHIL 453 may not take this course for credit.

PHIL 365 ***Metaphysics*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. In this course, metaphysics is treated in two ways: firstly, the problem of being in classical and contemporary ontologies; secondly, the metaphysical suppositions underlying epistemological, moral, and social theories.
NOTE: Students who have received credit for PHIL 454 may not take this course for credit.

PHIL 366 ***Philosophy of Religion*** (6 credits)
Prerequisite: Three credits in Philosophy, or permission of the Department. A critical assessment of modern developments in philosophy regarding the question of whether the thinking individual can maintain a religious belief in God.
NOTE: Students who have received credit for PHIL 351 may not take this course for credit.

PHIL 370 ***Ancient Western Philosophy*** (6 credits)
A study of the principal developments from the Presocratics through Plato and Aristotle up to Plotinus. Emphasis is placed on the critical reading of selected texts.
NOTE: Students who have received credit for PHIL 310 may not take this course for credit.

PHIL 376 ***Contemporary Philosophy*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. A study of selected philosophers of the twentieth century. Movements and figures discussed vary from year to year. Such topics as the following are considered: positivism, pragmatism, Marxism, phenomenology, existentialism, and philosophical analysis.
NOTE: Students who have received credit for PHIL 313 may not take this course for credit.

PHIL 384 ***Russian Anarchism*** (3 credits)
The contradictory character of Russian cultural and philosophical development is studied in the works and activities of its main protagonists. Philosophical relevance of such major Russian writers as Dostoyevsky, Tolstoy, and Solzhenitsyn is shown as well.
NOTE: Students who have received credit for PHIL 334 may not take this course for credit.

PHIL 385 ***Marxism*** (3 credits)
A critical analysis of the ideas of Marx and their modern development.
NOTE: Students who have received credit for PHIL 335 may not take this course for credit.

PHIL 386 ***Existentialism*** (6 credits)
A course designed to acquaint the student with the fundamentals of the existentialist movement as a philosophical perspective. Among philosophers considered are Kierkegaard, Nietzsche, Heidegger, Sartre, Merleau-Ponty, Jaspers, Marcel, and Berdyaev.
NOTE: Students who have received credit for PHIL 312 may not take this course for credit.

PHIL 389 ***Phenomenology and Psychology*** (3 credits)
This is an introduction to the fundamentals of phenomenology through a study of conscious experience, both subjective and inter-subjective. Standard psychological models and methods are examined in order to open up phenomenological alternatives in the fields of aesthetics, literary criticism, religious and moral experience. Phenomenology complements psychological research in these areas.
NOTE: Students who have received credit for PHIL 347 may not take this course for credit.

PHIL 398 ***Intermediate Special Topics in Philosophy*** (3 credits)

PHIL 399 ***Intermediate Special Topics in Philosophy*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

PHIL 414 ***Advanced Topics in Logic*** (3 credits)
Prerequisite: PHIL 314, or permission of the Department. This course will present the fundamentals of an advanced topic in logic.
NOTE: Students who have received credit for PHIL 422 may not take this course for credit.

PHIL 416 ***Philosophy of Language*** (3 credits)
Prerequisite: Twelve credits in Philosophy among which is required PHIL 216, or permission of the Department. Advanced study of a central problem in recent philosophy of language.

PHIL 421 ***Philosophy of Science*** (6 credits)
Prerequisite: One course in logic, or permission of the Department. A critical examination of problems pertaining to the structure and status of scientific theories and the logic of scientific inference. Such topics as the following are discussed: explanation, confirmation, verifiability and falsifiability, problems of definition, observational and theoretical terms, models and analogies.

PHIL 426 ***Philosophy of Mind: Cognitive Science*** (3 credits)
Prerequisite: Twelve credits in Philosophy among which is required PHIL 212 or 214, or permission of the Department. PHIL 326 or 327 is strongly recommended. An interdisciplinary study which combines the philosophical study of mind with current research in psychology, neuroscience, linguistics, and computer science.
NOTE: Students from related disciplines are welcome, and should consult the instructor concerning prerequisites.

PHIL 430 ***Advanced Studies in Ethics*** (3 credits)
Prerequisite: PHIL 232, or permission of the Department. A critical analysis of leading ethical theories from Moore to the present. Special attention is given to the naturalistic fallacy, the reducibility or normative statements, ethical reasoning, and the relation of ethics to psychology and sociology.
NOTE: Students who have received credit for PHIL 456 may not take this course for credit.

PHIL 439 ***Advanced Studies in Aesthetics*** (6 credits)
Prerequisite: Three credits in Philosophy, or permission of the Department. An examination of aesthetic problems, phenomenon, and theory, with particular attention to the role of the Fine Arts in the twentieth century.
NOTE: Students who have received credit for PHIL 455 may not take this course for credit.

PHIL 463 ***Honours Seminar in Epistemology*** (3 credits)
Prerequisite: PHIL 263 and 12 credits in Philosophy, or permission of the Department. Intensive study of major contemporary issues in the theory of knowledge.
NOTE: Students who have received credit for PHIL 460 may not take this course for credit.

PHIL 465 ***Honours Seminar in Metaphysics*** (3 credits)
Prerequisite: PHIL 265 and 12 credits in Philosophy, or permission of the Department. Intensive study of major contemporary issues in metaphysics.
NOTE: Students who have received credit for PHIL 460 may not take this course for credit.

PHIL 466 ***Philosophy of God*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. The problem of the natural knowledge of God, including readings from Plato, Aristotle, Anselm, Aquinas, Descartes, Hume, Pascal, Kant, Hegel, Feuerbach, Marx, Kierkegaard, Newman, Nietzsche, Sartre, Ayer, and Russell.
NOTE: Students who have received credit for PHIL 457 may not take this course for credit.

PHIL 470 ***Medieval Philosophy*** (6 credits)
Prerequisite: PHIL 370, or permission of the Department. A study of Western philosophy

from Augustine to the later Scholastics.
NOTE: Students who have received credit for PHIL 410 may not take this course for credit.

PHIL 473 ***Modern Philosophy*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. A study of Western philosophy from Descartes to Hume.
NOTE: Students who have received credit for PHIL 412 may not take this course for credit.

PHIL 474 ***Nineteenth-Century Philosophy*** (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. An examination of some of the main currents of post-Kantian philosophy. Hegel and the post-Hegelians, the romantic reaction, positivism, and pragmatism.
NOTE: Students who have received credit for PHIL 417 may not take this course for credit.

PHIL 480 ***Plato*** (3 credits)
Prerequisite: Twelve credits in Philosophy among which is required PHIL 370, or permission of the Department. An analysis of some of the central themes in the major dialogues of Plato.

PHIL 481 ***Aristotle*** (3 credits)
Prerequisite: Twelve credits in Philosophy among which is required PHIL 370, or permission of the Department. An analysis of the central themes in selected passages from the major works of Aristotle.

PHIL 485 ***Kant*** (6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. An intensive study of Kant's *Critique of Pure Reason* and related works.

PHIL 486 ***Hegel*** (6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. An analysis of selected themes from Hegel's works.

PHIL 487 ***Contemporary Analytic Philosophy I*** (3 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. The investigation of selected philosophical problems as they arise in the writings of such early analytic philosophers as Moore, Russell, Ayer, Carnap, and the early Wittgenstein.
NOTE: Students who have received credit for PHIL 467 may not take this course for credit.

PHIL 488 ***Contemporary Analytic Philosophy II*** (3 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. The investigation of selected philosophical problems as they arise in the writings of such later analytic philosophers as the later Wittgenstein, Quine, Ryle, Wisdom, Austin, and others.
NOTE: Students who have received credit for PHIL 468 may not take this course for credit.

PHIL 489 ***Phenomenology*** (6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. Origins and development of phenomenology from Brentano and Meinong through the different stages of Husserl's writings. Post-Husserlian modifications are considered briefly. The second term is devoted to a discussion of the influence of the phenomenological movement on contemporary developments in the social sciences and humanities. Actual topics are determined by the student's areas of interest and academic qualifications.
NOTE: Students who have received credit for PHIL 449 may not take this course for credit.

PHIL 496 ***Tutorial in Philosophy*** (3 credits)
Prerequisite: Permission of the Department. This is an opportunity to carry out a personal project under the supervision of a Faculty member. An intensive reading programme is undertaken in the student's area of special interest. Tutorials may be arranged with any Faculty member, and the student must make these arrangements and obtain *written* permission in advance of registration.
NOTE: Students who have received credit for PHIL 471 may take this tutorial for credit provided the subject matter is different.

PHIL 497 ***Tutorial in Philosophy*** (3 credits)
Prerequisite: Permission of the Department. See PHIL 496 for description.
NOTE: Students who have received credit for PHIL 472 and/or 496 may take this tutorial for credit provided the subject matter is different.

PHIL 498 ***Advanced Topics in Philosophy*** (3 credits)

PHIL 499 ***Advanced Topics in Philosophy*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.230 PHYSICS

Faculty

Chair
J. DAVID CHEEKE, *Professor*

Professors
DAVID E. CHARLTON
BARRY FRANK
CALVIN S. KALMAN
SUSHIL K. MISRA

Associate Professors
M. STEPHEN DUBAS, s.j.
NELSON W. EDDY
MARIANA FRANK
ARLIN L. KIPLING
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STANLEY P. MORRIS
PANAGIOTIS VASILOPOULOS
RAMESH C. SHARMA
JOSEPH SHIN

Adjunct Associate Professor
SESHA SUBRAMANIAN

Adjunct Assistant Professor
NORMAN B. LEWIS

Location

Sir George Williams Campus
Hall Building, Room: H 841
(514) 848-3270

Department Objectives

In the twentieth century, breakthroughs in physics have revolutionized thinking about the fundamentals of matter, motion, and energy. Physics is the study of these fundamentals. The Physics Department is committed to preparing students for careers or advanced study in both the theoretical and applied aspects of physics. Students in the co-op programme gain valuable job experience and discover the career opportunities open to them in addition to regular course work.

Programmes

Students are required to complete the appropriate entrance profile for entry into the programme (see §31.002 — Programmes and Admission Requirements — Profiles).

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

42 Core Programme
6 MATH 262[3], 263[3]
33 PHYS 232[3], 233[3], 243[3], 244[3], 252[3], 253[3], 254[3], 334[3], 335[3], 364[3], 477[3]
3 PHYS 291[1], 293[1], 394[1]

72 BSc Honours in Pure Physics
42 Core Programme
15 PHYS 336[3], 344[3], 435[3], 456[3], 478[3]
15 Chosen from PHYS 290[2], 297[1], 345[3], 353[3], 355[3], 398[3], 457[3], 465[3], 467[3], 487[3], 498[3]

72 BSc Honours in Applied Physics
42 Core Programme
15 PHYS 290[2], 297[1], 353[3], 355[3], 398[3], 435[3]
15 PHYS 390[3], 391[3], 465[3] or 467[3], 488[6]

63 BSc Specialization in Pure Physics
42 Core Programme
21 Chosen from PHYS 290[2], 297[1], 336[3], 344[3], 345[3], 353[3], 355[3], 435[3], 456[3], 457[3], 465[3], 467[3], 478[3], 498[3]

63 BSc Specialization in Applied Physics
42 Core Programme
15 PHYS 290[2], 297[1], 353[3], 355[3], 398[3], 435[3]
6 PHYS 467[3] and 494[3] or 392[3] and 465[3]

80 BSc Specialization in Geology-Physics
See §31.140 — Geology

90 BSc Specialization in Physics/Marketing
6 MATH 262[3], 263[3]
21 PHYS 243[3], 244[3], 253[3], 254[3], 291[1], 293[1], 334[3], 364[3], 394[1]
15 Chosen from PHYS 232[3], 252[3], 290[2], 297[1], 335[3], 336[3], 344[3], 345[3], 353[3], 355[3], 390[3], 391[3], 392[3], 393[1], 398[3], 435[3], 455[3], 456[3], 457[3], 465[3], 467[3], 477[3], 478[3], 491[3], 494[3], 495[1]
6 DESC 243[3], 244[3], or equivalent
3 PHYS 233[3] or COMP 212[3], or equivalent
6 ACCO 213[3], 218[3]
6 MANA 266[3], 340[3]
6 ECON 201[3], 203[3]
6 MARK 213[3], 350[3]
15 Chosen from the Department of Marketing

42 BSc Major in Physics

6 MATH 262[3], 263[3]

21 PHYS 243[3], 244[3], 253[3], 254[3], 291[1], 293[1], 334[3], 364[3], 394[1]

15 Chosen from the Department's offerings, with due regard to prerequisites and with consultation with the Department

24 Minor in Physics

24 Chosen from the Department's offerings, with due regard to prerequisites and with consultation with the Department, and would normally include at least three credits in laboratory courses

30 Certificate in Scientific Measurement

6 MATH 262[3], 263[3]

18 PHYS 253[3], 254[3], 293[1], 294[1], 295[2], 296[2], 353[3], 355[3]

3 Chosen from PHYS 243[3], 252[3], 364[3]

3 Chosen from PHYS 390[3]*, 392[3]

**Students may replace PHYS 390[3] with PHYS 396[5] if they wish.*

Students may transfer into the Certificate programme up to *12* credits earned in an incomplete degree or Certificate programme or as an Independent provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

NOTE: In general, experiments involved in the laboratory courses on the Sir George Williams Campus can be done from week to week, at variable times chosen by the student.

PHYSICS CO-OPERATIVE PROGRAMME

Director
NELSON W. EDDY, *Associate Professor*

The Physics Co-operative programme is offered to students who are enrolled in the BSc Honours and Specialization in Physics. Students interested in applying for the Physics co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is very similar to that of the regular programmes, with some specific recommendations for courses to improve the students' job skills. While it is hoped that most of the positions will be in the Montréal area, students must be prepared to work in other parts of Canada.

Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Physics co-op committee, which includes the student's advisers.

Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

PHYS 204 ***Mechanics*** (3 credits)
Prerequisite: MATH 203 or equivalent, previously or concurrently. Kinematics, Newton's laws of motion. Statics, dynamics. Conservation of momentum and energy. Rotational motion. Periodic motion. Lectures only.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration. See PHYS 224 for laboratory associated with this course.

PHYS 205 ***Electricity and Magnetism*** (3 credits)
Prerequisite: MATH 203; PHYS 204 or equivalent. Electrical charge and Coulomb's law. Electrical field and potential. Capacity, steady state, and transient currents. Electromagnetic induction and alternating currents. Lectures only.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration. See PHYS 225 for laboratory associated with this course.

PHYS 206 ***Waves and Modern Physics*** (3 credits)
Prerequisite: PHYS 204 or equivalent. Simple harmonic motion. Wave propagation. Superposition. Stationary waves. Doppler effect. Interference. Diffraction. Photoelectric effect. Compton effect. Bohr's atom. Radioactivity, fission, fusion. Lectures only.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration. See PHYS 226 for laboratory associated with this course.

PHYS 210 ***Discoveries in Physics*** (6 credits)
A non-mathematical course in physics specifically designed for students who have had

little or no experience in physics. This courses traces the fundamental ideas from which modern physics has emerged, and attempts to develop insights into the understanding of natural phenomena. Lectures only.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit.

PHYS 215 ***The Mechanics of Visual Representation*** (3 credits)
An introductory course combining laboratories and lectures illustrating the basic laws that govern the mechanism of image reproduction. Relevant topics concerning the interaction of light and materials are discussed and demonstrated. Students perform experiments with light-sensitive materials, the pinhole camera, light intensity, and illumination measurement. Human visual response, the grey scale, sensitometry, densitometry, the characteristic curve, and ASA, DIN; film speeds are examined in depth. This course is designed to complement COMS 275 (Visual Dynamics I). This course is designed for students in Communication Studies. Laboratory and lectures: three hours per week.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit.

PHYS 217 ***The Physics of Photo-Reproduction*** (3 credits)
A combined laboratory and lecture course designed for students in Communication Studies who have some basic knowledge of physical laws. Ideas introduced in PHYS 215 are further developed, covering such topics as exposure measurements and control, and the Standard Association Institute Photographic Exposure Guide. The mechanics of a lens, image formation, f-stops diaphragm openings, the three-colour composition of light, the colour-temperature scale, and filters are studied. This course is designed so that students gain an intelligent and efficient use of their equipment. Laboratory and lecture: three hours per week.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit.

PHYS 224 ***Introductory Experimental Mechanics*** (1 credit)
Prerequisite: PHYS 204 previously or concurrently, or permission of the Department. This laboratory course covers fundamental experiments in classical mechanics. Experiments include resolution of forces, centrifugal force and conservation of energy, pendulums. Laboratory only, 10 experiments.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

PHYS 225 ***Introductory Experimental Electricity*** (1 credit)
Prerequisite: PHYS 205 previously or concurrently, or permission of the Department. This laboratory course covers fundamental experiments in electricity. Experiments include Kirchhoff's law, resistors in series and parallel, oscilloscope, induction, alternating current. Laboratory only, 10 experiments.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

PHYS 226 ***Introductory Experimental Waves and Modern Physics*** (1 credit)
Prerequisite: PHYS 206 previously or concurrently, or permission of the Department. This laboratory course covers the fundamental experiments in waves and modern physics. Experiments include spectrometer measurements. Newton's rings and measurements involving radioactivity. Laboratory only, 10 experiments.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit to be applied to their programme of concentration.

PHYS 232 ***Theoretical Physics I*** (3 credits)
Prerequisite: MATH 262 previously or concurrently. Linear algebra — abstract vector space, fundamental concepts of the vector space; linear maps and their representation, orthogonal maps, products of linear maps; an introduction to the eigenvalue problem. Introduction to differential equations — linear first-order and second-order ordinary differential equations (homogeneous and non-homogeneous); general method to find particular solutions; the power-series method; problems from mechanics and electricity. Lectures only.

PHYS 233 ***Computational Methods in Physics*** (3 credits)
Prerequisite: PHYS 243; PHYS 253 previously or concurrently, or permission of the Department. Applications of computers to solve physics problems: solutions of systems of linear equations, least squares analysis; curve fitting/plotting; numerical integration; Monte Carlo techniques. Emphasis on FORTRAN, but BASIC, PASCAL, or C may be used.

PHYS 243 ***Classical Mechanics I*** (3 credits)
Prerequisite: MATH 205; PHYS 204 or equivalent. Fundamental concepts, the laws of motion, equilibrium of forces, friction, forces of constraint, centre of mass, work, potential, motion of a particle, motion in resisting media, simple harmonic oscillation, damped oscillations. Lectures only.
NOTE: See PHYS 291 for laboratory associated with this course.

PHYS 244 ***Classical Mechanics II*** (3 credits)
Prerequisite: PHYS 243 or equivalent. Central forces, Kepler's laws, dynamics of a system of

particles, mechanics of rigid bodies, Lagrange's equations, Hamilton's equations. Lectures only.
NOTE: See PHYS 292 for laboratory associated with this course.

PHYS 252 ***Optics*** (3 credits)
Prerequisite: PHYS 206 or equivalent. Geometrical optics: general treatment of optical systems. Wave optics: review of simple harmonic motion, wave equation, superposition of waves, electromagnetic waves, scattering, polarization, interference–coherent sources, interference-uniformly–extended sources, diffraction, waves in a dispersive medium, lasers. Lectures only.
NOTE: Students who have received credit for PHYS 352 may not take this course for credit.

PHYS 253 ***Electricity and Magnetism I*** (3 credits)
Prerequisite: PHYS 205 or equivalent; MATH 262 or equivalent, previously or concurrently. Electric charge, Coulomb's law, electrostatic forces, electric field, Gauss's law, electric potential, stored energy. Dielectrics, properties of materials in electric fields. Electric current, conduction in a vacuum and in material media, displacement current, magnetic field of a current, force on a current-carrying wire, magnetic induction, electromotive force, energy stored in a magnetic field. Magnetism in material media, magnetic circuits, time-varying fields. Capacitance, resistance, inductance; circuitry. Lectures only.
NOTE: See PHYS 293 for laboratory associated with this course.

PHYS 254 ***Electricity and Magnetism II*** (3 credits)
Prerequisite: PHYS 253 or equivalent; MATH 263 or equivalent, previously or concurrently. The field concept. Maxwell's equations. Boundary conditions. Power and energy. The electrostatic field. Electrostatic potential. The concept of capacitance. Polarization. The concept of local field in matter. The magnetostatic field. The Biot-Savart law. The scalar magnetic potential. Plane waves. Total internal reflection. Lectures only.
NOTE: See PHYS 294 for laboratory associated with this course.

PHYS 270 ***Introduction to Energy and Environment*** (3 credits)
This course is designed for students who have little or no background in physics. Topics covered include relationship of physics to environment and energy. Concept and definition of work and energy. Interaction of people and inanimate objects with the environment. Heat and chemical energy. Electromagnetic and nuclear energy. Conservation of energy — how it affects everyday life. Sources of energy used on earth. Solar energy. Production of wind power, water power, solar cells from sun's energy, biological uses, biopower. Lectures only.
NOTE: Students in programmes leading to the BSc degree may not take this course for credit.

PHYS 273 ***Energy and Environment*** (3 credits)
Prerequisite: PHYS 270, or six credits in CEGEP Physics, or equivalent. Nuclear energy stored in the earth. Geothermal energy. Biological energy stored in the earth. Second law of thermodynamics. Entropy. Food energy. Home heating and cooling. Solar heating. Transportation of people, goods, and energy. Recycling materials. Resource conservation and humanity's ability to change — need for a conservation ethic, need for alternate energy sources, need for public knowledge. Lectures only.

PHYS 290 ***Experimental Electronics*** (2 credits)
Prerequisite: PHYS 205, 225 or equivalent. A practical laboratory course in electronics. This course explores the usage of electronic measuring instruments and components. Experiments include power supplies, transistor amplifiers, operational amplifiers, oscillators, audio and radio frequency amplifiers.
NOTE: Students who have received credit for PHYS 295 and 296 may not take this course for credit.

PHYS 291 ***Experimental Mechanics I*** (1 credit)
Prerequisite: PHYS 243 previously or concurrently. A laboratory course in mechanics. Experiments include pendulum, coefficient of restitution, centrifugal force, rotational inertia, inelastic impact.

PHYS 292 ***Experimental Mechanics II*** (1 credit)
Prerequisite: PHYS 291. A laboratory course in mechanics. Experiments include the use of air tracks to study acceleration, collisions, dissipative forces, and periodic motion. Other experiments include viscosity and surface tension of liquids.

PHYS 293 ***Experimental Electricity and Magnetism I*** (1 credit)
Prerequisite: PHYS 253 previously or concurrently. A laboratory course in electricity and magnetism. Experiments include motion of electrons in electric and magnetic fields, exponential relaxation, damped oscillations, resonance, non-linearity, negative resistance.

PHYS 294 ***Experimental Electricity and Magnetism II*** (1 credit)
Prerequisite: PHYS 293. A laboratory course in electricity and magnetism. Experiments include the transistor, amplification and frequency response, transient response and negative feedback, positive feedback and oscillation, periodic structures.

PHYS 295 ***Experimental Electronics I*** (2 credits)
A practical laboratory course in electronics.

Experiments include resistors in series and parallel, voltameter, Ohm's law, Kirchhoff's current and voltage laws, Ohmmeter, capacitor, inductor, transformer, rectifiers, voltage doubler, zener diode, power supplies.
NOTE: Students who have received credit for PHYS 290 may not take this course for credit.

PHYS 296 ***Experimental Electronics II*** (2 credits)
Prerequisite: PHYS 295. A practical laboratory course in electronics. Experiments include oscilloscope, biasing of bipolar transistors, transistor amplifiers, voltage and current regulators, field-effect transistor, oscillators, operational amplifier circuits, audio amplifier, I-F transformer, limiter, amplitude and frequency modulation.
NOTE: Students who have received credit for PHYS 290 may not take this course for credit.

PHYS 297 ***Experimental Optics*** (1 credit)
Prerequisite: PHYS 252 previously or concurrently. An experimental course in optics. Experiments include diffraction, optical instruments, resonance, and various experiments using lasers. Laboratory only, 10 experiments.
NOTE: Students who have received credit for PHYS 392 may not take this course for credit.

PHYS 298 ***Selected Topics in Physics*** (3 credits)

PHYS 299 ***Selected Topics in Physics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

PHYS 334 ***Thermodynamics*** (3 credits)
Prerequisite: PHYS 204 or equivalent; MATH 205 or equivalent; MATH 262, 263. Temperature, simple thermodynamic systems; work, heat, and first law; ideal gas, Van der Waal's gas, heat engines, reversible and irreversible processes; entropy, second law, thermodynamics potentials, kinetic theory. Maxwell distribution, mean free path. Lectures only.
NOTE: This course should not be taken before the second year of university studies. See PHYS 494 for laboratory associated with this course.
NOTE: Students who have received credit for PHYS 434 may not take this course for credit.

PHYS 335 ***Theoretical Physics II*** (3 credits)
Prerequisite: PHYS 232 or equivalent; MATH 263 previously or concurrently. Linear algebra: linear map, linear coordinate transformations, eigenvalue problem, vector space of functions, Sturm-Liouville problem, Fourier series and applications. Lectures only.

PHYS 336 ***Theoretical Physics III*** (3 credits)
Prerequisite: PHYS 335 or equivalent. Classification and derivation of partial differential equations in physics. Separation of variables technique. The Fourier method for solving partial differential equations. Special functions. Application to physical problems arising from electrostatics, heat conduction, wave propagation, etc. Lectures only.

PHYS 344 ***Advanced Classical Mechanics*** (3 credits)
Prerequisite: PHYS 232 or equivalent; PHYS 244 or equivalent; MATH 263 or equivalent, previously or concurrently. Lagrangian and Hamiltonian dynamics, collision between particles, motion of rigid bodies, Hamilton-Jacobi theory, small oscillations. Lectures only.

PHYS 345 ***Special Relativity*** (3 credits)
Prerequisite: PHYS 244, 254, 364. Historical introduction, Einstein and relativity, application of the Lorentz transformation, four-vectors, the Lorentz invariance of physical theories. Lectures only.

PHYS 353 ***Solid State Electronic Devices*** (3 credits)
Prerequisite: PHYS 253 or equivalent. This course deals mainly with the physics and operations of some of today's common electronic devices. The treatment will include an introduction to band theory, and the devices include both junction devices as well as field-effect devices. The following devices will be examined: tunnel, Schottky, and photo diode; bipolar junction transistor; JFET, MOSFET transistors; four-layer devices such as SCR and TRIAC; integrated circuits: MSI, LSI, and NMOS technology. Lectures only.
NOTE: Students who have received credit for PHYS 354 may not take this course for credit.

PHYS 355 ***Electronics II*** (3 credits)
Biasing of transistors; feedback analysis, common circuits involving operational amplifiers; large signal amplifiers, digital circuits: gates, flip-flops, logic functions. Lectures only.
NOTE: See PHYS 296 for laboratory associated with this course.

PHYS 364 ***Atomic Physics*** (3 credits)
Prerequisite: PHYS 205 or equivalent; PHYS 206 or equivalent; PHYS 254 recommended. Special relativity. Wave-particle duality. The Rutherford atom, the Bohr-Sommerfeld atom. Origin of quantum theory. Schroedinger's equation. Electrons and ions. Electromagnetic radiation. Atomic structure. Lectures only.
NOTE: This course should not be taken before the second year of university studies. See PHYS 394 for laboratory associated with this course.

PHYS 384 ***Introduction to Astronomy*** (3 credits)
Prerequisite: PHYS 205 or equivalent; MATH 205 or equivalent. The celestial sphere. The solar system. Celestial mechanics. Basic stellar characteristics. The galaxy — structure and content. Extragalactic objects. Lectures only.

PHYS 385 ***Astrophysics*** (3 credits)
Prerequisite: PHYS 384. The stars, stellar atmospheres, motion, interiors, and populations. Variable stars. Nebulae. Radio, X-ray, and infrared sources. The galaxy — population and dynamics. The extragalactic universe. Lectures only.

PHYS 390 ***Experimental Digital Electronics*** (3 credits)
Prerequisite: PHYS 296 or equivalent. Breadboarding digital circuits; gating a signal; truth tables; decade counter; decoders, demultiplexers, multiplexers and sequencers; light-emitting diodes and LED displays; tristate and open collector outputs; flip-flops, monostable multivibrators; semiconductor memories; registers, binary counters, arithmetic elements. Laboratory only.
NOTE: Students who have received credit for PHYS 396 may not take this course for credit.

PHYS 391 ***Introduction to Experimental Microprocessors and Assembly Language Programming*** (3 credits)
Prerequisite: PHYS 233; COMP 212 or equivalent. Eight-bit microprocessor architecture: opcodes, addressing modes, memory mapped I/O, vectored interrupts, etc. The MS/DOS operating system, word processing, Motorola assembly language: pseudocodes, labels, subroutines, interrupt service routines, structured programming techniques. Cross assemblers, RS232 serial transmission of ASCII and binary data to remote computers. Laboratory only.
NOTE: Students who have received credit for PHYS 396 may not take this course for credit.

PHYS 392 ***Experimental Medical Electronics*** (3 credits)
Prerequisite: PHYS 290 or 296, or equivalent. A laboratory course in the maintenance and use of medical instruments, including ECG monitor, electrocardiograph, cardio-tachometer, blood-pressure recorder, respiration-rate recorder, and clinical thermometer. The component parts of the instruments are studied first, and then the instruments are constructed and tested. Laboratory only.
NOTE: Students who have received credit for PHYS 397 may not take this course for credit.

PHYS 393 ***Experimental Thermodynamics*** (1 credit)
Prerequisite: PHYS 334 previously or concurrently. A laboratory course in thermodynamics. Experiments include Clement and Desormes' experiment, vaporization, specific heats, liquid nitrogen boiling. Laboratory only, 10 experiments.
NOTE: Students who have received credit for PHYS 494 may not take this course for credit.

PHYS 394 ***Experimental Atomic Physics*** (1 credit)
Prerequisite: PHYS 226 or equivalent, or permission of the Department. An experimental course in atomic physics. Experiments include the Frank-Hertz experiment, the Zeeman effect, mass spectrometer, and some X-ray work. Laboratory only, 10 experiments.

PHYS 396 ***Computer Electronics*** (5 credits)
Prerequisite: PHYS 296 or equivalent. Diode clipping circuits, transistor as a switch, multivibrator circuits, logic circuits. Study and troubleshooting of integrated circuit logic gates, J-K flip-flops, analogue-to-digital and digital-to-analogue converters, frequency-divider circuits, digital multiplexers and demultiplexers, pulse-distributor logic gates. Study and implementation of basic logic functions and Boolean expressions to programme a small digital computer. Laboratory only.
NOTE: Students who have received credit for PHYS 390 may not take this course for credit.

PHYS 398 ***Selected Topics in Physics*** (3 credits)

PHYS 399 ***Selected Topics in Physics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

PHYS 435 ***Statistical Physics*** (3 credits)
Prerequisite: PHYS 334, 364. Basic probability concepts, statistical description of systems of particles, thermal interactions, microscopic theory and macroscopic measurements, temperature and entropy, M-B, F-D, B-E statistics. Canonical distribution in the classical approximation, general thermodynamics interaction. Lectures only.

PHYS 436 ***Theoretical Physics IV*** (3 credits)
Prerequisite: PHYS 335. Theory of complex variables leading to residue theory, with applications to physics. Tensor calculus: tensor algebra; line element, covariant differentiation; applications. Lectures only.

PHYS 456 ***Electromagnetic Theory I*** (3 credits)
Prerequisite: PHYS 254, 336. Derivation of the laws of electrostatics and magnetostatics from the basic experimental laws; methods of images; solutions of Laplace's and Poisson's equations for electrostatic problems, magnetism, Maxwell's equations. Lectures only.

PHYS 457 ***Electromagnetic Theory II*** (3 credits)
Prerequisite: PHYS 456. Wave solution of Maxwell's equations in various media. Classical model of a dielectric. Helmholtz equation and wave equation by Green's functions. Multipole fields. Interaction of charged particles. Radiation by moving charges. Abraham-Lorentz theory.

PHYS 465 ***Nuclear Physics*** (3 credits)
Prerequisite: PHYS 364; PHYS 477 previously or concurrently. Discussion of nuclear properties. The deuteron, nuclear structure and models. Scattering. Nuclear transitions, disintegrations, and reactions. Radioactivity and decay laws. Passage of radiation through matter, shielding, radiation dosage. Detection and acceleration of particles. Neutrons. Nuclear reactors. Environmental concerns. Lectures only. *NOTE: See PHYS 495 for laboratory associated with this course.*

PHYS 467 ***Solid State Physics*** (3 credits)
Prerequisite: PHYS 477 previously or concurrently. Crystal structure of solids. Lattice dynamics. Specific heat. Electrons in metals. Free-electron theory of conduction. Band theory. Semi-conductors. Dielectric and magnetic properties of solids. Lectures only.

PHYS 477 ***Quantum Mechanics I*** (3 credits)
Prerequisite: PHYS 244, 335, 364. State functions and their interpretation, wave packet, linear momentum, motion of a free particle, Schroedinger's equation, stationary state, solution, potential wells. Lectures only.

PHYS 478 ***Quantum Mechanics II*** (3 credits)
Prerequisite: PHYS 477. The harmonic oscillator, creation operators, approximation methods of solving Schroedinger's equation, perturbation theory, system of particles, motion in three dimensions, spin, angular momentum, hydrogen atom. Lectures only.

PHYS 480 ***Directed Readings in Theoretical Physics*** (3 credits)
Prerequisite: Permission of the Department. A course for advanced students in which a special topic, selected in consultation with a faculty member, is studied in depth.

PHYS 487 ***Honours Thesis (Pure Physics)*** (6 credits)
Prerequisite: PHYS 456 or equivalent, previously or concurrently and enrolment in Honours Physics. Under the supervision of a faculty member, the student will investigate a physics problem of current interest. The student is expected to do extensive readings, research, and/or computations on the subject, and is required to write a thesis. An oral presentation or examination is also required.

PHYS 488 ***Honours Thesis (Applied Physics)*** (6 credits)
Prerequisite: PHYS 293, 290, 394, or equivalent and enrolment in Honours in Physics. A senior project in Applied Physics. The student consults the thesis supervisor for a suitable project. The student is expected to do extensive readings, research and/or computations on the subject, and is required to write a thesis. An oral presentation or examination is also required. *NOTE: Students who have received credits for PHYS 392 or 494 may not use the same material for the thesis project.*

PHYS 491 ***Experimental Microprocessor Interfacing*** (3 credits)
Prerequisite: PHYS 390; PHYS 391 or equivalent. Address decoding, multiplexing, and demultiplexing with TTL integrated circuits. Address decoding circuits, drivers, and receivers. Parallel, serial and non-TTL I/O. Breadboarding, wire-wrapping, and soldering techniques. The use of oscilloscopes, logic probes, and computers for circuit trouble-shooting. Drawing schematic diagrams. Timing diagrams. Data sheets. Laboratory only.

PHYS 494 ***Methods of Experimental Physics*** (3 credits)
Prerequisite: PHYS 290, 293, 394 or equivalent, or permission of the Department. A supervised research project which may include experiments in nuclear physics, laser and fibre-optics, solid state physics, ultrasonics, or thermal physics. A technical report is required.

PHYS 495 ***Experimental Nuclear Physics*** (1 credit)
Prerequisite: PHYS 394; PHYS 465 previously or concurrently. A laboratory course in nuclear physics. Experiments include gamma- and beta-ray spectroscopy, nuclear magnetic resonance, half-life determination, nuclear activities. Laboratory only, 10 experiments.

PHYS 498 ***Advanced Topics in Physics*** (3 credits)

PHYS 499 ***Advanced Topics in Physics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.240 POLITICAL SCIENCE

Faculty

Chair
HENRY P. HABIB, *Professor*

Professors
ARTHUR KROKER
LALITA P. SINGH

Adjunct Professor
LESLIE LASZLO

Associate Professors
PARIS J. ARNOPOULOS
HAROLD R. CHORNEY
RONALD C. COYTE
MARCEL DANIS
ANDREW B. GOLLNER
KLAUS J. HERRMANN
HORST HUTTER
BROOKE JEFFREY
GUY LACHAPELLE
JAMES W. MOORE
MABEN POIRIER
EVERETT M. PRICE
HARVEY SHULMAN
REETA C. TREMBLAY
BLAIR WILLIAMS

Assistant Professor
GERALD ALFRED

Location

Loyola Campus
Vanier Extension, Room: VE 327
(514) 848-2106

Sir George Williams Campus
Annex D, Room: 103
(514) 848-2105

Department Objectives

The Department of Political Science offers a wide range of courses and programmes to acquaint students with the complex workings of contemporary government and politics. The curriculum provides the theoretical foundations, analytical skills, and research methods for understanding the making of government policy as well as the underlying nature and purpose of political processes and institutions. The aim is to prepare well-rounded, concerned citizens for careers in the public service and the private sector, or for graduate or law school.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Political Science
- 6 POLI 200[6]
- 6 Chosen from POLI 270[6], 271[3], 273[3]
- 6 Chosen from POLI 372[6], 374[6]
- 42 Chosen from at least three of the five groups in Political Science, with a minimum of 30 credits taken at the 300 or 400 level, 12 of which must be seminar courses.*

**Six credits may be taken in a cognate discipline with the permission of the Department.*

60 BA Honours in Political Science (Concentration in a Special Field of Study)
- 18 POLI 200[6], 270[6], or 271[3] and 273[3], 372[6] or 374[6]
- 18 Chosen from at least three of the five groups in Political Science
- 24 Chosen from one of the five groups in Political Science with a minimum of 12 credits taken at the 400 level.*

**Six credits may be taken in a cognate discipline with the permission of the Department.*

60 BA Specialization in Political Science
- 6 POLI 200[6]
- 12 Chosen from Group V: Theory
- 42 Chosen from at least two of the other four groups in Political Science. A minimum of 30 credits must be taken at the 300 or 400 level, six of which must be a seminar course.*

**Six credits may be taken in a cognate discipline with the permission of the Department.*

42 BA Major in Political Science
- 6 POLI 200[6]
- 36 Chosen from at least three of the five groups in Political Science. A minimum of 24 credits must be taken at the 300 or 400 level.

42 BA Major in Political Science (Concentration in one Group)
- 6 POLI 200[6]
- 24 Chosen from one of the five groups in Political Science. A minimum of 18 credits must be at the 300 or 400 level.
- 6 Chosen from the other four groups in

Political Science at the 300 or 400 level.
6 Chosen from a cognate discipline (courses to be designated)

18 Chosen from any of the five groups in Political Science. A minimum of 12 credits must be taken at the 300 or 400 level.

24 Minor in Political Science
6 POLI 200[6]

The Department of Political Science offers the following programmes of study: a general Honours; an Honours with concentration in a special field of study; a Specialization; a general Major; a Major with concentration in a special field of study; and a Minor.
In order to maintain Honours status, students must obtain approval for their programmes from the Honours adviser each year, prior to registration. In the second year of the Honours programme, each student will choose a faculty adviser to advise the student on course selection and seminar research essays.
The Specialization is designed for students who wish to acquire a broad knowledge of the discipline without the additional requirements of the Honours programme.
The programme of courses leading to a Minor in Political Science consists of 24 credits in the Department. The Minor is designed to provide an opportunity for students to make a combination with a Specialization, a Major, or Honours in another discipline. A student's Minor will be arranged in consultation with the Department of Political Science so that it relates to courses in the Major area of study.

Explanation of Course Numbers.
1. Courses in the 200 range are open to all Political Science students, and to students in other departments.
2. All 400-level courses are taught as seminars and require at least one 300-level prerequisite.
3. Special permission of the Department is required for exemptions to the above.

Group 1: International

POLI 210 International Relations (6 credits)
POLI 311 International Public Law (3 credits)
POLI 313 International Law and Power Relations (3 credits)
POLI 315 International Organizations (3 credits)
POLI 317 Regional Organizations (3 credits)
POLI 321 The Middle East in World Politics (3 credits)
POLI 323 Politics of Eastern Europe (3 credits)
POLI 348 Latin America and the Caribbean in World Affairs (3 credits)
POLI 359 Canadian External Affairs (3 credits)
POLI 412 Foreign Policy and Diplomacy (6 credits)
POLI 415 International Justice (3 credits)
POLI 417 Peace Studies (3 credits)
POLI 419 Strategic Studies (3 credits)
POLI 421 Transnational Politics (3 credits)
POLI 425 Macropolitics (6 credits)

Group 2: Comparative Politics

POLI 319 European Politics (3 credits)
POLI 324 Western European Governments (3 credits)
POLI 327 American Government and Politics (3 credits)
POLI 329 American Foreign Policy (3 credits)
POLI 331 British Government and Politics (3 credits)
POLI 333 Politics of Russia (3 credits)
POLI 334 Women and the Law (6 credits)
POLI 335 Contemporary Politics of China (3 credits)
POLI 337 Contemporary Politics of Japan (3 credits)
POLI 339 Mid-East Political Systems I (3 credits)
POLI 340 Political Systems of Southern Asia (3 credits)
POLI 341 Mid-East Political Systems II (3 credits)
POLI 342 Asia and Power Politics (3 credits)
POLI 343 West African Government and Politics (3 credits)
POLI 344 Comparative Political Analysis (3 credits)
POLI 345 East African Government and Politics (3 credits)
POLI 346 Political Systems of Latin America and the Caribbean (3 credits)
POLI 352 Comparative Urban Politics and Government (3 credits)
POLI 389 Religion and Politics (3 credits)
POLI 430 Comparative Political Parties (6 credits)
POLI 431 State and Socio-Economic Change in South Asia (3 credits)
POLI 432 Western Political Systems (6 credits)
POLI 434 Asian Political Systems (6 credits)
POLI 437 Politics of East Europe and Russia (3 credits)

Group 3: Canadian

POLI 240 Canadian Public Law (6 credits)
POLI 250 Canadian Government and Politics (6 credits)
POLI 334 Women and the Law (6 credits)
POLI 351 Canadian Federalism (3 credits)
POLI 352 Comparative Urban Politics and Government (3 credits)
POLI 353 Québec Politics (3 credits)

POLI 355 Nationalism: The Canadian Experience (3 credits)
POLI 356 Canadian Political Parties (3 credits)
POLI 358 Interest Groups and Public Opinion in Canada (3 credits)
POLI 359 Canadian External Affairs (3 credits)
POLI 363 Issues in Canadian Public Policy (3 credits)
POLI 365 Canadian Public Administration (3 credits)
POLI 367 Québec Public Administration (3 credits)
POLI 450 Québec Government and Politics (6 credits)
POLI 452 Intergovernmental Relations in Canada (6 credits)
POLI 453 The Provinces in Canadian Federalism (3 credits)
POLI 454 Legislative, Executive, and Judicial Decision-Making (6 credits)
POLI 471 Political Thought and Ideology in Canada (3 credits)
POLI 476 Political and Party Finance in Canada and Québec (3 credits)

Group 4: Public Policy and Administration

POLI 260 Introduction to Public Policy and Administration (6 credits)
POLI 349 Political and Social Theory and the City (3 credits)
POLI 352 Comparative Urban Politics and Government (3 credits)
POLI 357 Social and Political Power in Canadian Society (3 credits)
POLI 360 Comparative Public Administration (6 credits)
POLI 361 Government, Society and the Public Purpose (3 credits)
POLI 363 Issues in Canadian Public Policy (3 credits)
POLI 365 Canadian Public Administration (3 credits)
POLI 367 Québec Public Administration (3 credits)
POLI 369 Regionalism and Public Policy in Canada (3 credits)
POLI 381 Bureaucracy and Public Policy (3 credits)
POLI 385 Environmental Issues and Policy (3 credits)
POLI 412 Foreign Policy and Diplomacy (6 credits)
POLI 454 Legislative, Executive, and Judicial Decision-Making (6 credits)
POLI 461 The State and Economic Life (3 credits)
POLI 462 Comparative Public Policy (6 credits)
POLI 463 Government and Business in Canada (3 credits)
POLI 465 Analysis and Evaluation of Public Policy (3 credits)

Group 5: Theory

POLI 270 History of Political Theory (6 credits)
POLI 271 Ancient Greek Political Philosophy (3 credits)
POLI 273 Roman, Medieval, and Renaissance Political Philosophy (3 credits)
POLI 275 Women and Politics (3 credits)
POLI 325 Ideas and Ideologies in the Middle East (3 credits)
POLI 344 Comparative Political Analysis (3 credits)
POLI 370 Problems and Concepts in Political Theory (6 credits)
POLI 371 Early Modern Political Philosophy (3 credits)
POLI 372 Methodology of Political Science (6 credits)
POLI 373 Late Modern Political Philosophy (3 credits)
POLI 374 Introduction to Quantitative Political Inquiry (6 credits)
POLI 375 Nationalism: Origins, Operation, Significance (3 credits)
POLI 377 Catholic Social and Political Thought (3 credits)
POLI 470 Contemporary Political Thought and Ideologies (6 credits)
POLI 471 Political Thought and Ideology in Canada (3 credits)
POLI 472 Communications and Politics (6 credits)
POLI 473 Political Theory and Historical Understanding (3 credits)
POLI 474 Political Theory and Scientific Method (6 credits)
POLI 475 Marxism (3 credits)

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

POLI 200 ***Introduction to Political Science*** (6 credits)
A description of the features universal to the governing processes of societies, and the nature and consequences of the major variations in these processes. The course combines a theoretical and conceptual framework, with a study of selected political systems and countries. It is designed to act both as an introduction to the discipline for those students who plan to study further, and to serve also those students who require a systematic examination of the field in a single course.

POLI 210 ***International Relations*** (6 credits)
An introductory course in world affairs. Among the topics covered are: the historical evolution of the international system; definitions of basic concepts; types of conflict and cooperation

among states; environmental, economic, socio-cultural, and ideological factors; critical problems, current issues, and major trends in world politics.

POLI 240 ***Canadian Public Law*** (6 credits)
This course is an introduction to Canadian public law, emphasizing such areas as constitutional law, criminal law, administrative law, applications for bail, and consumer protection. In addition, the course involves a study of the organization and functioning of the court system.
NOTE: Students who have received credit for POLI 350 may not take this course for credit.

POLI 250 ***Canadian Government and Politics*** (6 credits)
An institutional and functional analysis of the Canadian federal system. The course centres upon the major problems of concern in the Canadian political process and considers the formal and informal institutions within which these problems might be solved. The political system is studied within the context of federalism; the electoral system; political parties; interest groups; public opinion and the Canadian political culture.

POLI 260 ***Introduction to Public Policy and Administration*** (6 credits)
An introductory course in the processes of implementing and making policy as practised in the principal political systems of the modern world. The course emphasizes the role of the civil service at the various levels of government in preparing and executing public policies and legislation.

POLI 270 ***History of Political Theory*** (6 credits)
A general survey of the writings of the great thinkers in the Western political tradition, from the classical period to the middle of the nineteenth century. This course provides a general introduction to the history of political thought.
NOTE: Students who have received credit for POLI 271 or 273 may not take this course for credit.

POLI 271 ***Ancient Greek Political Philosophy*** (3 credits)
A study of the political thought of the ancient Greeks. The principal texts studied are *The Republic of Plato* and *The Politics of Aristotle.* This course is particularly recommended for students in the political theory area of concentration.
NOTE: Students who have received credit for POLI 270 may not take this course for credit.

POLI 273 ***Roman, Medieval, and Renaissance Political Philosophy*** (3 credits)
A study of the political thought of Rome, the Middle Ages, and the Renaissance, with special emphasis upon the political writings of Cicero, St. Augustine, St. Thomas Aquinas, and Machiavelli. This course is recommended for students in the political theory area of concentration.
NOTE: Students who have received credit for POLI 270 may not take this course for credit.

POLI 275 ***Women and Politics*** (3 credits)
A study of the role of women in public movements, public policy, and political parties, with reference to ideology theories on the role of women in society.

POLI 298 ***Selected Topics in Political Science*** (3 credits)

POLI 299 ***Selected Topics in Political Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

POLI 311 ***International Public Law*** (3 credits)
An introductory course in legal interstate relations. Among the topics covered are: the sources and development of law; relationships with municipal law; meaning of legal concepts; rights and duties of states; sovereignty and territoriality; state recognition and succession.

POLI 313 ***International Law and Power Relations*** (3 credits)
A general course on the role of law in world politics. Among the topics covered are: the theory and reality of law; international transactions and diplomatic law; customary and treaty law; judicial settlement of disputes; the laws of war and neutrality.

POLI 315 ***International Organizations*** (3 credits)
An introductory course in intergovernmental institutions. Among the topics covered are: the development of international public unions; the League of Nations and the United Nations; the structure and function of international administration; specialized agencies and world order.

POLI 317 ***Regional Organizations*** (3 credits)
A general course in international structural integration. Among the topics covered are: the dynamics of socio-political unification; theories of regionalism; supranational communities and common markets. Emphasis is given to institutions such as the EEC, COMECON, OAS, OAU, LAFTA, and ASEAN.

POLI 319 ***European Politics*** (3 credits)
A course on institutions in the European community. The course focuses on supranational regional integration and possible future developments.
NOTE: Students who have received credit for POLI 233 may not take this course for credit.

POLI 321 ***The Middle East in World Politics*** (3 credits)
A survey of major regional and international problems facing the Middle East. The role of foreign powers is examined with special emphasis on the USA and USSR. Selected topics include the Arab-Israeli question, the Lebanese crises, the Cyprus crises, the Iranian revolution and its impact on international affairs and the crisis of the Gulf, Horn of Africa and the Red Sea.

POLI 323 ***Politics of Eastern Europe*** (3 credits)
A study of the political process and institutions of the region, with a special focus on their recent transformation relating to economic problems, social structures, cultural issues, and ethnic conflicts; as well as the role of government policies in domestic and foreign affairs.

POLI 324 ***Western European Governments*** (3 credits)
A course in comparative government, focusing on the political institutions of the principal nation-states of the Western European continent, including those in Scandinavia, Iberia, and the British Isles.
NOTE: Students who have received credit for POLI 231 may not take this course for credit.

POLI 325 ***Ideas and Ideologies in the Middle East*** (3 credits)
A survey of contemporary major political, historical, socio-economic, and religious ideologies and movements, which affect Middle Eastern political thought. Special attention is directed to Arab nationalism, Zionism, Turkish nationalism, the Islamic revival in Iran, socialism and Communism.

POLI 327 ***American Government and Politics*** (3 credits)
A course on the political structures and processes of the United States, focusing on the constitutional framework and domestic politics of the federal system.

POLI 329 ***American Foreign Policy*** (3 credits)
A course in the role of the United States in the world. The course considers the strategic position and superpower status of the U.S.A. through its foreign policy and its diplomatic relations with other countries.

POLI 331 ***British Government and Politics*** (3 credits)
Government and politics in Britain, with particular emphasis on political parties and pressure groups, the changing role of the legislature and executive, and the public corporations. The issues of current constitutional interest are discussed, such as the office of Prime Minister and parliamentary sovereignty.

POLI 333 ***Politics of Russia*** (3 credits)
A study of the government and politics of the old and the new Russia, including emerging political, social and economic structures, conflicts, and issues.

POLI 334 ***Women and the Law*** (6 credits)
Prerequisite: POLI 200, or equivalent. A historical comparative study of the status of women as seen in different legal systems. The course deals with women in relation to private, family, and public law. The framework is primarily legal, but also includes a consideration of the social and political implications of women's legal status. Special attention is directed to Québec and Canadian law.

POLI 335 ***Contemporary Politics of China*** (3 credits)
An analysis of the political development of and change in China since the triumph of Communism in China, with special emphasis on the role of the CCP, mass mobilization and prospect, and influence on Asia and world politics.

POLI 337 ***Contemporary Politics of Japan*** (3 credits)
An analysis of the political change in and development of Japan since the end of World War II, with special emphasis on the reorientation of Japan, characteristics of Japanese modernization and of post–industrial politics, problems of national post-industrial politics, problems of national security and constitutional pacifism, and influence on Asia and world politics.

POLI 339 ***Mid-East Political Systems I*** (3 credits)
A comparative study of the government and politics of Arab North Africa, namely Egypt, Libya, Tunisia, Morocco, Algeria, and the Sudan. A link between these and other Middle-Eastern governments is made.

POLI 340 ***Political Systems of Southern Asia*** (3 credits)
A study of government and politics of South and Southeast Asia, with special reference to India, Pakistan, Indonesia, and Vietnam.

POLI 341 ***Mid-East Political Systems II*** (3 credits)
A comparative study of the government and politics of the Arabian peninsula, the states of Iraq, Syria, Lebanon, Jordan, Israel, Turkey, and Iran. A link between these and the North African Arab states is made.

POLI 342 ***Asia and Power Politics*** (3 credits)
A study of superpowers' policies in Asia and the international relations of India, China, Japan, Indonesia, and Vietnam.

POLI 343 ***West African Government and Politics*** (3 credits)
A study of political institutions and processes in West Africa, with special reference to Nigeria, Ghana, Togo, Guinea, Cameroon, and Angola.

POLI 344 ***Comparative Political Analysis*** (3 credits)
Prerequisite: POLI 200. This course deals with theoretical aspects of comparative politics. Topics include: terms and concepts of political analysis, theories of modernization and political development, dependency, corporatism, and state autonomy.
NOTE: Students who have received credit for POLI 230 may not take this course for credit.

POLI 345 ***East African Government and Politics*** (3 credits)
A study of political institutions and processes in East Africa, with special reference to Zambia, Zimbabwe, Tanzania, Kenya, and Mozambique.

POLI 346 ***Political Systems of Latin America and the Caribbean*** (3 credits)
A study of political change, reform and revolution, military rule, and the experiences of representative government in selected countries of South America, Central America, and the Caribbean.

POLI 348 ***Latin America and the Caribbean in World Affairs*** (3 credits)
A study in inter-American relations, the dependency perspective, sub-regional integration, and international relations of selected states of the area.

POLI 349 ***Political and Social Theory and the City*** (3 credits)
This course examines the theoretical and ideological aspects of city government in historical and normative perspective.
NOTE: Students who have received credit for POLI 336 may not take this course for credit.

POLI 351 ***Canadian Federalism*** (3 credits)
Prerequisite: POLI 250. A critical and analytical study of the theory of federal government and its application to the nature, principles, and techniques of federalism in Canada. The reaction of the Canadian federal system to the demands of cultural dualism and regional pressures. Some attention is also given to the problems of provincial governments and federal-provincial relations.

POLI 352 ***Comparative Urban Politics and Government*** (3 credits)
This course deals with politics and government in selected Canadian cities, with comparative reference to cities elsewhere in the world.
NOTE: Students who have received credit for POLI 336 may not take this course for credit.

POLI 353 ***Québec Politics*** (3 credits)
Prerequisite: POLI 250. A study of the changing party structure and political issues in Québec and their relationship to constitutional, cultural, and economic factors.

POLI 355 ***Nationalism: The Canadian Experience*** (3 credits)
Prerequisite: POLI 250, or permission of the Department. Examines the origins and development of nationalism and regionalism in Canada, with particular attention centred upon the interaction between French–Canadian and English-Canadian nationalist sentiments. Considers the similarities and divergencies of nationalist and regionalist sentiment in Canada with those of European nationalism, and evaluates their significance with regard to the development of the Canadian federation and its capacity to confront the realities and demands of the modern technological environment.

POLI 356 ***Canadian Political Parties*** (3 credits)
Prerequisite: POLI 250. A study of national political parties with emphasis on ideology, political organization, leadership, and political recruitment.

POLI 357 ***Social and Political Power in Canadian Society*** (3 credits)
Prerequisite: POLI 250. An analysis of power and influence in Canadian society. The course reviews theoretical approaches to the study of political power and influence, leading to an examination of such key determinants of power as social class, elites, and economic structures in Canada.

POLI 358 ***Interest Groups and Public Opinion in Canada*** (3 credits)
Prerequisite: POLI 250. An examination of the function of interest groups, formulation and expression of public opinion and its impact on public policy.

POLI 359 ***Canadian External Affairs*** (3 credits)
This course examines Canada's position in the world. The presentation includes an outline of the diplomatic history of Canada, as well as an analysis of its foreign and defence policies. Emphasis is given to the decision-making process by which policy is formulated and executed, with particular reference to Canadian relations vis-à-vis the United States, the Commonwealth, and the United Nations.
NOTE: Students who have received credit for POLI 451 may not take this course for credit.

POLI 360 ***Comparative Public Administration*** (6 credits)
Concerned with the theories and maxims, as well as with the development of public administration. The student is introduced to issues such as the organization of

governmental departments, budget policy, decision-making in government administration, personnel selection and training methods, as well as the application of efficiency ratings. There is, throughout, strong emphasis on attitudes and differences pertinent to the civil service in a selected group of countries.

POLI 361 ***Government, Society and the Public Purpose*** (3 credits)
An examination of the broad social, economic, political, and cultural forces shaping governmental decisions and policies. Particular attention is paid to the conflict between private and public concerns.

POLI 363 ***Issues in Canadian Public Policy*** (3 credits)
The course examines alternative public policies in selected areas at the federal, provincial, and municipal levels in Canada, leading towards the development of individual research projects. Policies analysed vary from year to year and include such areas as: social welfare policy, culture, education, and language policy; environmental protection, energy conservation, urban renewal, economic policy.

POLI 365 ***Canadian Public Administration*** (3 credits)
Prerequisite: POLI 250, or permission of the Department. This course examines the organization and composition of the federal bureaucracy, the role of the bureaucracy in the making and execution of public policy, patterns of recruitment, and the mechanisms of accountability to, and control over the behaviour of, these bodies.

POLI 367 ***Québec Public Administration*** (3 credits)
Prerequisite: POLI 250, or permission of the Department. This course examines the organization and composition of the provincial bureaucracy, the role of Québec civil servants in the making and execution of public policy, patterns of recruitment, and the mechanisms of accountability to, and control over the behaviour of, these bodies.

POLI 369 ***Regionalism and Public Policy in Canada*** (3 credits)
Prerequisite: POLI 250. An examination of the impact of regionalism on public policy in Canada with special emphasis on the problems of regional disparity and conflict. A historical analysis of national development policies and regional underdevelopment leads to a study of federal-provincial development strategies, and an assessment of alternative policies for the alleviation/elimination of regional disparities.

POLI 370 ***Problems and Concepts in Political Theory*** (6 credits)
Prerequisite: POLI 270 or POLI 271; POLI 273. A course in political theory that examines central concepts in political thinking, such as liberty, equality, and power. The content of the course includes basic methodology and terminology to the extent that the thematic orientation in any given year may require its inclusion.

POLI 371 ***Early Modern Political Philosophy*** (3 credits)
The Reformation and rise of modern individualism. The principal political thinkers studied in this period are Luther, Calvin, Bellarmine, Bodin, Hobbes, Harrington.

POLI 372 ***Methodology of Political Science*** (6 credits)
A study of the contemporary subject matter and methods of political science. The course deals with: 1) fundamental concepts, principles, institutions, and processes of politics; 2) methods and techniques of the study of politics, including an introduction to statistical analysis; 3) present approaches, such as functionalism, behaviourism, and practical laboratory periods.

POLI 373 ***Late Modern Political Philosophy*** (3 credits)
The Enlightenment and its critics, and the political thought of the early industrial period. The most important thinkers studied in this period are Locke, Montesquieu, Hume, Rousseau, J.S. Mill.

POLI 374 ***Introduction to Quantitative Political Inquiry*** (6 credits)
A study of the logic and methodology of political science research. Special attention is paid to the formulation of hypotheses and research design; the study of quantitative methods of data collection and analysis; and the introduction of SPSS (Statistical Package for Social Sciences).

POLI 375 ***Nationalism: Origins, Operation, Significance*** (3 credits)
Examines the foundations of nationalist ideology developed originally in the early nineteenth century as a purely European phenomenon. Considers specific nationalist ideologies — European, African, Asian, etc., with regard to their modality of operation and their significance in relation to a society's capacity to evolve and confront the demands, both internal and external, of the contemporary environment.

POLI 377 ***Catholic Social and Political Thought*** (3 credits)
An inquiry into contemporary Catholic social and political thought as stated in papal encyclicals; a broad survey of Catholic political activity as manifested in the European and Latin-American Christian socialist and Christian democratic movements and parties.

POLI 381 ***Bureaucracy and Public Policy*** (3 credits)
Prerequisite: POLI 365 or POLI 367. An

examination of the expanding role of the federal or provincial bureaucracy in the development and implementation of public policy in Canada. Particular attention is devoted to the sources of increasing bureaucratic power and to the patterns of interaction among the cabinet, parliament, and the bureaucracy.

POLI 385 ***Environmental Issues and Policy*** (3 credits)
An examination of selected environmental issues, and public and governmental response to these issues. This course examines the making of public demands related to environmental issues (through movements and interest groups) and its impact on governmental response (in terms of policy outputs).

POLI 389 ***Religion and Politics*** (3 credits)
A study of the impact of religion on political processes and movements in selected countries and areas.

POLI 398 ***Selected Topics in Political Science*** (3 credits)

POLI 399 ***Selected Topics in Political Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

POLI 412 ***Foreign Policy and Diplomacy*** (6 credits)
A specialized course on the substance, formulation, and implementation of foreign policy in selected countries. Special attention is paid to theoretical frameworks, inputs in decision-making, policy evaluation, diplomatic establishments, diplomatic negotiation, treaty-making, and conference diplomacy.
NOTE: Students who have received credit for POLI 411, 413 may not take this course for credit.

POLI 415 ***International Justice*** (3 credits)
A specialized course on the role of morality in world affairs. Among the topics covered are: human rights and collective values; individual obligation and state responsibility; relativistic ethics and universal standards; natural law and equity; international stratification and inequality; international courts of justice and the legitimation of world order.

POLI 417 ***Peace Studies*** (3 credits)
A specialized course on the theory and practice of world peace. Among the topics covered are: the causes of war and the conditions of peace; human aggression and the peace movement; structural violence and revolution; nationalism and cosmopolitanism; disarmament and peacekeeping.

POLI 419 ***Strategic Studies*** (3 credits)
A specialized course in power politics and defence policy. Among the topics covered are: balance of power and collective security; military alliances and spheres of influence; the East-West cold war and détente; theories of geopolitics and imperialism; nuclear weapons and the arms race; deterrence and game theory.

POLI 421 ***Transnational Politics*** (3 credits)
A specialized course in international socio-economic relations. Among the topics covered are: the North-South confrontation and the new international economic order; multinational corporations and non-governmental organizations; the Third World and the politics of development; economic interdependence and self-reliance; political influence of trade, aid, and investment; natural resources and the limits to growth.

POLI 425 ***Macropolitics*** (6 credits)
An advanced study of conflict-resolution and policy–making processes of international systems. The seminar centres on processes and dynamics of international systems. Specific topics may include such subjects as relations of superpowers with regional powers, East-West and North–South confrontations, or the impact of technology on international politics.

POLI 430 ***Comparative Political Parties*** (6 credits)
A study of the history, ideology, and organization of a selected number of countries representing different political systems.

POLI 431 ***State and Socio-Economic Change in South Asia*** (3 credits)
This is a study of the role of the state in nation-building, modernization, and development in India, Pakistan, Bangladesh, and Sri Lanka. Special attention is paid to topics such as ideology, national development, the state, poverty, community development, and social change.

POLI 432 ***Western Political Systems*** (6 credits)
A seminar on the political systems of Western Europe and North America.

POLI 434 ***Asian Political Systems*** (6 credits)
A discussion of selected themes — nationalism, Communism, process of modernization and/or Asian political institutions, political forces, and foreign policies. The topics may vary from year to year.

POLI 437 ***Politics of East Europe and Russia*** (3 credits)
A study of selected issues dealing with post-Communist political, social, and economic realities in East Europe and the former Soviet Union, and their international implications.

POLI 450 ***Québec Government and Politics*** (6 credits)
A study of the institutions and functions of the executive, legislative, judicial, and administrative branches of the Québec government. A detailed study of Québec's jurisdictional and fiscal problems with the federal government. Discussion on the political process in Québec; the electoral system, political parties, pressure groups, and public opinion. The role of the Catholic Church in Québec politics. A study of the most important thinkers in French Canada.

POLI 452 ***Intergovernmental Relations in Canada*** (6 credits)
An examination of the structure and process of relations among the federal, provincial, and municipal levels of government. Particular attention is on the development and administration of shared programmes and the problems of intergovernmental cooperation.

POLI 453 ***The Provinces in Canadian Federalism*** (3 credits)
An analysis of regional political cultures in Canada; the development of provincial parties and public administrations; the rise of third parties; electoral behaviour and provincial public opinion.

POLI 454 ***Legislative, Executive, and Judicial Decision-Making*** (6 credits)
An examination of formulation of decisions in the legislative, executive, and judicial branches of government, using Canada as the model.

POLI 461 ***The State and Economic Life*** (3 credits)
An examination of the development of the welfare state and the forces contributing to the expansion of government intervention in the economy. Particular attention is devoted to the causal interdependence among values, political power, wealth, the general pattern of social stratification, and economic development.
NOTE: Students who have received credit for POLI 460 may not take this course for credit.

POLI 462 ***Comparative Public Policy*** (6 credits)
A comparative analysis of some of the major policy problems confronting industrially advanced societies. The aim is to understand how similar problems are approached by different political systems.

POLI 463 ***Government and Business in Canada*** (3 credits)
A course in public policy designed to explore the relationship between government and business in Canada. Particular attention is given to the formation and implementation of policies intended to promote and control enterprise and the role of government as entrepreneur.
NOTE: Students who have received credit for POLI 460 may not take this course for credit.

POLI 465 ***Analysis and Evaluation of Public Policy*** (3 credits)
An advanced study of the various theoretical approaches to policy planning, evaluation and analysis, and of the various conceptual, methodological, and ethical issues emergent in the evaluation of governmental policy performance.

POLI 470 ***Contemporary Political Thought and Ideologies*** (6 credits)
Prerequisite: POLI 270 or POLI 371 or POLI 373. An advanced study of important political thinkers and major ideologies including liberalism, conservatism, fascism, socialism, and Communism.

POLI 471 ***Political Thought and Ideology in Canada*** (3 credits)
A study of the writings of the most significant political and social thinkers in Canada, and of the main ideological orientations in Canadian politics.

POLI 472 ***Communications and Politics*** (6 credits)
This course examines communications and national unity, communications and social mobilization, politics and the mass media, the use of political symbols, communication, and authority, and the "Canadian School" of culture and communications, based on the ideas of Harold Innis.

POLI 473 ***Political Theory and Historical Understanding*** (3 credits)
An advanced seminar on the relation between historical understanding and political thought.

POLI 474 ***Political Theory and Scientific Method*** (6 credits)
An advanced seminar on the problems of applying scientific method in the study of politics.

POLI 475 ***Marxism*** (3 credits)
A critical examination of the major texts of Marx and Engels, and a study of representative selections of Marxist thinkers chosen from among the following: Kautsky, Plekhanov, Lenin, Luxemburg, Trotsky, Stalin, Lukacs, Gramsci, Althusser, Mao.

POLI 476 ***Political and Party Finance in Canada and Québec*** (3 credits)
Prerequisite: POLI 250. This course discusses the ways and means of financing political parties, conventions, and elections in Québec, and elsewhere in Canada. The course also examines the influence of party financing on party organization, elections, leadership, the governmental systems, and policies of parties and governments.
NOTE: Students who have received credit for this topic under a POLI 498 number may not take this course for credit.

POLI 498 ***Advanced Topics in Political Science*** (3 credits)

POLI 499 ***Advanced Topics in Political Science*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.250 PSYCHOLOGY

Faculty

Chair
ALEX E. SCHWARTZMAN, *Professor*

Professors
SHIMON AMIR
ZALMAN AMIT
TANNIS ARBUCKLE-MAAG
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WILLIAM BRENDER
GABRIEL BRETON
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MICHAEL CONWAY
THOMAS GRAY
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W. RONALD HOOPER
JAMES E. JANS
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MELVIN K. KOMODA
JEAN-ROCH LAURENCE
SYDNEY B. MILLER
DIANE POULIN-DUBOIS
NORMAN SEGALOWITZ
PETER SERAGANIAN
DALE M. STACK
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CHARLES W. WHITE
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CHARLENE BERGER
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Location

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Department Objectives

Psychology is the scientific study of mental life, both its neurological bases and its manifestations in behaviour. Psychology also examines the factors that promote change in behaviour and mental activity.
Through teaching and research, the Department serves the community by furthering such knowledge and applying it to promote human welfare. The commitment of faculty members to research assures that students keep up with current developments. Their involvement in community programmes keeps students and faculty alike in close touch with the practical application of the discipline.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

Students must apply to the departmental Honours adviser for formal admission to Honours programmes. The application is usually made after completion of the first-year courses.
For additional information concerning programmes and courses, students should consult the course guide published annually by the Department.

66 BA Honours in Psychology

Stage I

6 PSYC 310[3], 315[3] concurrently
12 PSYC 311[3], 316[3], 320[6]

Stages II and III

9 Chosen from PSYC 343[3], 346[3], 349[3], 352[3]
3 PSYC 344[3] or 347[3] or 350[3] or 353[3]
6 Chosen from PSYC 358[3], 359[3], 362[3], 365[3], 366[6], 367[3]
12 Chosen from PSYC 330[6], 333[6], 336[6], 339[6]
6 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology programme adviser.
6 PSYC 421[3], 422[3]
6 PSYC 430[6]

66 BSc Honours in Psychology

Stage I

6 PSYC 310[3], 315[3] concurrently
12 PSYC 311[3], 316[3], 320[6]

Stages II and III

9 Chosen from PSYC 343[3], 346[3], 349[3], 352[3]
3 PSYC 344[3] or 347[3] or 350[3] or 353[3]
6 PSYC 330[6] or 333[6] or 336[6] or 339[6]
12 Chosen from PSYC 358[3], 359[3], 362[3], 365[3], 366[6], 367[3], 369[3], 381[3], 384[3]
6 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology programme adviser
6 PSYC 421[3], 422[3]
6 PSYC 430[6]

NOTE: In addition students must take a minimum of 15 science credits outside the Department selected in consultation with a Psychology programme adviser.

Psychobiology Option

Students wishing to do BSc Honours (Psychobiology Option) must take six credits of PSYC 358, 359, 362, 365, 367 as part of their Psychology programme. To complete the option students will select 21 credits in Chemistry and Biology from the courses listed below. Fifteen (15) of these 21 credits will replace the 15 outside credits of science electives. Up to six of these 21 credits may be substituted for six credits of Psychology electives.

Stage I

6 CHEM 221[3], 222[3]

Stages I and II

6 BIOL 225[3]; CHEM 271[3]

Stages II and III

9 Chosen from BIOL 261[3], 266[3], 321[3], 335[3], 336[3], 364[3], 367[3], 383[3], 384[3], 462[3]; CHEM 473[3], 474[3], 478[3]

60 BA Specialization in Psychology

Stage I

6 PSYC 310[3], 315[3] concurrently
12 PSYC 311[3], 316[3], 320[6]

Stages II and III

9 Chosen from PSYC 343[3], 346[3], 349[3], 352[3]
3 PSYC 344[3] or 347[3] or 350[3] or 353[3]
6 Chosen from PSYC 358[3], 359[3], 362[3], 365[3], 366[6], 367[3]
12 Chosen from PSYC 330[6], 333[6], 336[6], 339[6]
12 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology programme adviser.

60 BSc Specialization in Psychology

Stage I

6 PSYC 310[3], 315[3] concurrently
12 PSYC 311[3], 316[3], 320[6]

Stages II and III

9 Chosen from PSYC 343[3], 346[3], 349[3], 352[3]
3 PSYC 344[3] or 347[3] or 350[3] or 353[3]
6 PSYC 330[6] or 333[6] or 336[6] or 339[6]
12 Chosen from PSYC 358[3], 359[3], 362[3], 365[3], 366[6], 367[3], 369[3], 381[3], 384[3]
12 Psychology elective credits at the 300 and 400 level selected in consultation with a Psychology programme adviser.

NOTE: In addition students must take a minimum of 15 science credits outside the Department selected in consultation with a Psychology programme adviser.

Psychobiology Option

Students wishing to do BSc Specialization (Psychobiology Option) must take six credits of PSYC 358, 359, 362, 365, 367 as part of their Psychology programme.

To complete the option students will select 21 credits in Chemistry and Biology from the courses listed below. Fifteen (15) of these 21 credits will replace the 15 outside credits of science electives. Up to six of these 21 credits may be substituted for six credits of Psychology electives.

Stage I

6 CHEM 221[3], 222[3]

Stages I and II

6 BIOL 225[3]; CHEM 271[3]

Stages II and III

9 Chosen from BIOL 261[3], 266[3], 321[3], 335[3], 336[3], 364[3], 367[3], 383[3], 384[3], 462[3]; CHEM 473[3], 474[3], 478[3]

42 BA Major in Psychology

Stage I

12 PSYC 310[3], 315[3] concurrently, PSYC 320[6]

Stage II and III

12 Chosen from PSYC 343[3], 346[3], 349[3], 352[3], 358[3], 366[6]
12 Chosen from PSYC 330[6], 333[6], 336[6], 339[6]
6 Psychology elective credits at the 300 or 400 level except PSYC 330[6], 333[6], 336[6], 339[6], selected in consultation with a Psychology programme adviser.

42 BSc Major in Psychology

Stage I

12 PSYC 310[3], 315[3] concurrently, PSYC 320[6]

Stage II and III

12 Chosen from 330[6], 333[6], 336[6], 339[6], 343[3], 346[3], 349[3], 352[3]

12 Chosen from PSYC 358[3], 359[3], 362[3], 365[3], 366[6], 367[3]

6 Psychology elective credits at the 300 or 400 level except PSYC 358[3], 359[3], 362[3], 366[6], 367[3], selected in consultation with a Psychology programme adviser.

30 Minor in Psychology

Stage I

12 PSYC 310[3], 315[3] concurrently, PSYC 320[6]

Stages II and III

12 Chosen from PSYC 330[6], 333[6], 336[6], 339[6], 343[3], 344[3], 346[3], 347[3], 349[3], 350[3], 352[3], 353[3], 358[3], 359[3], 362[3], 365[3], 366[6], 367[3]

6 Psychology elective credits at the 300 or 400 level selected in consultation with a Psychology programme adviser.

NOTE: Students in programmes leading to the BSc degree are reminded that PSYC 320 and PSYC 390-394 do not count as science credits. All other 300- and 400-level Psychology courses count as science credits.

Courses

Students should see §200.1 for a list of equivalent courses.

PSYC 200 ***Introductory Psychology*** (6 credits)

This comprehensive survey course introduces the student to the phenomena and terminology encountered in a number of areas of scientific psychology. Topics covered include basic mechanisms of the receptors and nervous system, memory, motivation, perception, learning, abnormal psychology, personality, cognition, and social aspects of behaviour.
NOTE: Students who have received credit for or exemption from Introductory Psychology at CEGEP or elsewhere may not take this course for credit.
NOTE: Students entering PSYC programmes who have not received credit for or exemption from Introductory Psychology at CEGEP or elsewhere must take this course, but not for Psychology programme credit.
NOTE: Students who have received credit for PSYC 200 or equivalent may not take MANA 213 for credit.

PSYC 280 ***Adolescence*** (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course deals with various aspects of adolescence including such topics as physical change, sexual and sex-related behaviours, cognitive growth, and lifestyles.
NOTE: Students registered in a Psychology programme may not take this course for credit.
NOTE: Students who have received credit for PSYC 379 or 391 may not take this course for credit.

PSYC 281 ***Learning Disabilities*** (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course deals with selected aspects of theory and practice related to learning disabilities including perceptual and motor disabilities, language disabilities, and methods of diagnosis and remediation.
NOTE: Students registered in a Psychology programme may not take this course for credit.
NOTE: Students who have received credit for PSYC 377 or 392 may not take this course for credit.

PSYC 283 ***Emotional Development*** (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course focuses on emotional development in childhood. Topics that may be considered include prenatal and genetic influences on emotion, attachment formation, effects of alternative child care, role of father, and poverty. The normal development of anxiety, fear, and affection is discussed.
NOTE: This course is intended primarily for students in the Family Life Education Certificate programme (Department of Applied Social Science).
NOTE: Students registered in a Psychology programme may not take this course for credit.

PSYC 284 ***Socialization*** (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course examines socialization processes during infancy, childhood, and adolescence. The effects on socialization of factors such as family structure, disciplinary techniques, and social class are considered. The development of social skills, morality, pro-social behaviour, and aggression are examined.
NOTE: This course is intended primarily for students in the Family Life Education Certificate programme (Department of Applied Social Science.)
NOTE: Students registered in a Psychology programme may not take this course for credit.

PSYC 286 ***Psychology of Leisure*** (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course explores the rapidly developing psychologically-oriented theory and research on leisure and its meaning and

importance for the individual. Topics that may be considered include motivation for leisure activities, planning for leisure and/or retirement, therapeutic value of leisure, new conceptions of work and leisure, leisure and self-development. *NOTE: Students registered in a Psychology programme may not take this course for credit.*

SELECTED TOPICS IN PSYCHOLOGY

The 200-level Selected Topics courses (PSYC 297; PSYC 298; PSYC 299) are designed as elective courses for students who are not registered in a Psychology programme. These courses, which have only Introductory Psychology (usually CEGEP Psychology 102 or PSYC 200) or equivalent as a prerequisite, cover a wide variety of areas of contemporary interest. The particular topics vary from session to session and the material is dealt with in a manner appropriate for students who have minimal formal background in psychology. Students should consult the Psychology Department Course Guide (published yearly) to find out the topic titles for a particular session. *NOTE: Students registered in a Psychology programme may not take these courses for credit.*

The Department also offers 300- and 400-level topic courses for students registered in Psychology programmes. (See below).

PSYC 297 ***Selected Topics in Psychology*** (3 credits)

PSYC 298 ***Selected Topics in Psychology*** (3 credits)

PSYC 299 ***Selected Topics in Psychology*** (6 credits)

PSYC 310 ***Research Methods in Experimental Psychology I*** (3 credits)

Prerequisite: Introductory Psychology or equivalent; PSYC 315. An examination of the experimental method in psychology. Students complete experimental projects to acquaint themselves with procedures in various areas of psychology, such as perception, learning, and motivation. Statistical procedures for analysis of the results of the experiments are presented in the concurrently taught course in psychological statistics. Lectures and laboratory.

PSYC 311 ***Research Methods in Experimental Psychology II*** (3 credits)

Prerequisite: PSYC 310; PSYC 315; PSYC 316 previously or concurrently. This course builds on the experience gained in PSYC 310 and 315. It is devoted to a critical examination of more complex designs used in psychology. Students are required to conduct and evaluate experiments. An opportunity is provided for them to undertake a supervised research project.

PSYC 312 ***Field Research Methodology*** (3 credits)

Prerequisite: PSYC 310; PSYC 315. This course deals with techniques for studying complex behaviour in non-laboratory settings. Topics such as the neutrality or invisibility of the observers, participant observation, categorization, and recording problems may be studied. The relationship between laboratory findings and findings from the non-laboratory setting is considered.

PSYC 315 ***Statistical Analysis in Experimental Psychology I*** (3 credits)

Prerequisite: Three approved credits in Mathematics at CEGEP or university; PSYC 310 to be taken concurrently. This course is an introduction to statistics, presented in an experimental psychology context. Topics dealt with include frequency distributions, measures of central tendency and dispersion, the normal curve, correlation, elementary probability theory, an introduction to hypothesis testing, and the *t* test. These topics are coordinated with the laboratory projects in Research Methods I which must be taken concurrently. *NOTE See §200.7*

PSYC 316 ***Statistical Analysis in Experimental Psychology II*** (3 credits)

Prerequisite: PSYC 310; PSYC 315. This course builds on the experience derived from PSYC 310 and 315 to advance the student's understanding of hypothesis testing and statistical inferences. The material dealt with includes non-parametric statistics, the chi-square and F-distribution, introductory analysis of variance, and various correlational techniques. *NOTE See §200.7*

PSYC 317 ***Introductory Statistical Methods in Psychology*** (6 credits)

Prerequisite: Any two CEGEP courses in Mathematics. Topics dealt with include frequency distributions, measures of central tendency and dispersion, correlation and regression, elementary probability theory, the binomial and normal distributions, sampling and statistical inference, simple analysis of variance, miscellaneous non-parametric techniques. Lectures and laboratory. Only six credits will be recognized from PSYC 315, 316, or 317. *NOTE See §200.7*

PSYC 318 ***Advanced Statistical Methods in Psychology*** (6 credits)

Prerequisite: PSYC 315; PSYC 316. (Or PSYC 317 or equivalent.) The course is intended for students who already possess some background in statistics. Knowledge of elementary descriptive and inferential statistics is assumed. The course covers topics such as advanced analysis of variance designs, introductory multivariate analysis, advanced topics in correlation and regression.

PSYC 320 ***Modern Psychology in Historical Perspective*** (6 credits)
Prerequisite: Introductory Psychology or equivalent. The course deals with the historical background of psychology from ancient and medieval times up to the present. Early contributions to psychology from the fields of philosophy, physics, physiology, and psychophysics are presented and related to the various schools of psychological thought from the late-nineteenth century to the modern era.

PSYC 330 ***Developmental Psychology*** (6 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. Basic findings and contemporary issues concerned with human cognition, social, and emotional development are considered. The course deals with a variety of topics such as the behavioural organization and competence of the new-born, relationships in the pre-school period, effects of different early environments, Piaget's theory of cognitive development.

PSYC 333 ***Social Psychology*** (6 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. The behaviour of the individual as a member of a larger grouping or society is dealt with. The study of the social influences on individuals or groups involves consideration of topics such as attitude change and development, intra-group communication and problem-solving, leadership, prejudice, development of social movements, and cults.

PSYC 336 ***Personality: Normal and Abnormal*** (6 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. The organization, functioning, and development of personality are discussed according to major theories of personality. Evidence from experimental studies and field findings is discussed. Socio-economic, cultural, and biological system factors may also be considered.

PSYC 339 ***Behaviour Disorders*** (6 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. The course deals with contemporary research and theory related to the aetiology, diagnosis, and treatment of various psychological disorders. Psychoneuroses, psychoses, and psychosomatic conditions are studied. Social, learning, and biological influences on the development of such disorders as schizophrenia, depression, anxiety neuroses, and phobias are discussed.

PSYC 343 ***Motivation I*** (3 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. This course reviews and evaluates theories and empirical findings concerning motivation. Topics include the study of motivation in historical perspective, the biological and evolutionary bases of motivation, drive, arousal, and incentive theories of motivation.
NOTE: Students who have received credit for PSYC 342 may not take this course for credit.

PSYC 344 ***Motivation II*** (3 credits)
Prerequisite: PSYC 343. This course is a continuation of PSYC 343; it presents a more focused and thorough treatment of selected topics in motivation. These may include sleep, hunger, sex, aggression, altruism, achievement, pain, fear, and play. Different sections of the course may cover different sets of topics.
NOTE: Students who have received credit for PSYC 342 may not take this course for credit.

PSYC 346 ***Learning I*** (3 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. This course reviews and evaluates theories and empirical findings concerning basic mechanisms of learning. Topics include the study of learning in historical perspective, Pavlovian conditioning, operant conditioning, reinforcement, stimulus control of behaviour, and the aversive control of behaviour.
NOTE: Students who have received credit for PSYC 345 may not take this course for credit.

PSYC 347 ***Learning II*** (3 credits)
Prerequisite: PSYC 346. This course is a continuation of PSYC 346; it presents a more focused and thorough treatment of more advanced topics in learning. These may include developmental aspects of learning, animal memory and cognition, human applications of conditioning principles, biological constraints on learning, or the physiology of learning and memory. Different sections of the course may cover different sets of topics.
NOTE: Students who have received credit for PSYC 345 may not take this course for credit.

PSYC 349 ***Sensation and Perception I*** (3 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. Physiological and psychological bases of sensation and perception. Topics such as pitch perception, colour vision, perception of movement, size, and distance are included. The areas of sensation and perception are integrated through a human information-processing approach to the understanding of audition, vision, and other modalities.
NOTE: Students who have received credit for PSYC 348 may not take this course for credit.

PSYC 350 ***Sensation and Perception II*** (3 credits)
Prerequisite: PSYC 349. A continuation of PSYC 349. This course examines current topics in the area of sensation and perception with an emphasis on recent research and developments in vision and audition, including areas such as colour vision, space perception, the anatomical

and physiological bases of perception, the perception of illusions, and motion perception. Different sections of this course may cover different sets of topics.
NOTE: Students who have received credit for PSYC 348 may not take this course for credit.

PSYC 352 ***Cognition I*** (3 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. A course that introduces the general area of cognitive psychology through the presentation and discussion of the theoretical and experimental foundations for our current understanding of how humans acquire and use language. Current research findings and theories in the areas of pattern recognition, attention, memory, and imagery are surveyed. Following this introductory course, students should have the necessary background to pursue advanced topics in cognition.
NOTE: Students who have received credit for PSYC 351 may not take this course for credit.

PSYC 353 ***Cognition II*** (3 credits)
Prerequisite: PSYC 352. A continuation of PSYC 352 that presents thorough treatments of topics such as cognitive development, psycholinguistics, concept acquisition, reading, speech perception, problem-solving, and reasoning. Different sections of this course may cover different sets of topics.
NOTE: Students who have received credit for PSYC 351 may not take this course for credit.

PSYC 354 ***Mathematical Theories of Behaviour*** (6 credits)
Prerequisite: PSYC 310; PSYC 315. The course surveys applications of mathematical techniques to problems of psychology in such areas as motivation, learning, decision-making, sensory psychophysics, and perception. Students enrolling in this course should have a mastery of elementary probability theory and should be confident of their ability to deal with elementary calculus, algebra, and logic.

PSYC 358 ***Fundamentals of Behavioural Neurobiology*** (3 credits)
Prerequisite: BIOL 200 or BIOL 201 or CEGEP Biology 301 or CEGEP Biology 921. The purpose of this course is to introduce students to the neural substrate of behaviour. Topics include the structure and function of neurons as well as neural communication, an introduction to neuroanatomy and endocrinology, the processing of sensory information, and the control of movement.
NOTE: Students who have received credit for PSYC 357 or 360 or 363 may not take this course for credit.

PSYC 359 ***Neuropsychology*** (3 credits)
Prerequisite: PSYC 358. The purpose of this course is to introduce students to basic neurology, including the neurological examination, clinical tests, and neurological disorders. The general principles underlying human neuropsychology are discussed, as well as the development of neural functioning and recovery following brain damage.
NOTE: Students who have received credit for PSYC 363 may not take this course for credit.
NOTE: Students who have received credit for PSYC 357 or 360 may take this course for credit.

PSYC 361 ***Psychology of Drug Dependence*** (3 credits)
Prerequisite: PSYC 310; PSYC 315. (Or six credits from among PSYC 358, 359, 362, 365, 367). This course focuses on the behavioural and pharmacological mechanisms underlying the phenomenon of drug dependence. Concepts such as physical and psychological dependence, tolerance, reinforcement, and aversion are discussed. In addition the role of these concepts in the development of new treatment procedures is assessed.

PSYC 362 ***Psychobiology of Learning and Memory*** (3 credits)
Prerequisite: PSYC 358. A number of mechanisms subserving learning and memory are investigated, including models based on relatively simple nervous systems, e.g., conditioning in Aplysia, as well as more complex systems, e.g., the neuronal mechanisms mediating eyeblink conditioning in the rabbit and the neuronal pathways that mediate reinforcement. Other topics may include the anatomical bases of memory, including the role of the hippocampus in spatial memory and the role of the NMDA receptor in learning and memory.
NOTE: Students who have received credit for PSYC 357 or 360 may not take this course for credit.
NOTE: Students who have received credit for PSYC 363 may take this course for credit.

PSYC 364 ***Introduction to Behavioural Medicine*** (6 credits)
Prerequisite: PSYC 310; PSYC 315. (Or six credits from among PSYC 358, 359, 362, 365, 367). This course surveys some of the areas dealt with by psychologists who conduct research or provide clinical services relating to physical health. The structure of the course reflects the growing recognition that psychological factors can be of major importance for both the development and eventual treatment of physical disorders. The course introduces students to the history and basic concepts of the field and covers psychological aspects of the etiology and treatment of such problems as pain and headache, substance abuse, anxiety and stress, cardiovascular disorders, sexual dysfunction. In discussing treatment, emphasis is placed on psychologically-based procedures, though somatic interventions (e.g., medication, diet, and surgery) are also reviewed at a level appropriate to the non-medical nature of the course.

PSYC 365 ***Psychobiology of Sensation and Perception*** (3 credits)
Prerequisite: PSYC 358. The course examines the relation between the structure of sensory systems and perceptual function. Some of the topics addressed are how the structure of the eye and ear determines how and what we see and hear; the modularity of cortical organization; segregation and integration of visual information; PDP and other models; bottom-up and top-down processing; the reconstruction of the perceptual world.
NOTE: Students who have received credit for PSYC 357 or 360 may not take this course for credit.
NOTE: Students who have received credit for PSYC 363 may take this course for credit.

PSYC 366 ***Animal Behaviour*** (6 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. (Or nine credits in CEGEP-level Chemistry and Biology courses or permission of the Department). The study of animal behaviour is approached from the point of view of sociobiology, ethology, and comparative psychology. Research findings from the experimental laboratory and from studies of animals in their natural environment are discussed. A study of genetic and evolutionary aspects of behaviour is intrinsic to the course.

PSYC 367 ***Psychobiology of Motivated Behaviours*** (3 credits)
Prerequisite: PSYC 358. The course examines the neural mechanisms mediating motivated behaviour. Topics addressed include the following: pleasure and pain; ingestive behaviour; sexual and reproductive behaviour; aggression; temperature regulation; sleep, arousal, and biological rhythms.
NOTE: Students who have received credit for PSYC 357 or 360 may not take this course for credit.
NOTE: Students who have received credit for PSYC 363 may take this course for credit.

PSYC 369 ***Hormones and Behaviour*** (3 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently; PSYC 358. The course deals with the role of hormones in integrating the activity of various neural, endocrine, and sensory systems to bring about organized, purposeful behaviour. Topics discussed include the reproductive, sexual, or environmentally adaptive systems, with treatment of material ranging from the molecular to the behavioural level.

PSYC 372 ***Psychology of Physical Activity*** (6 credits)
Prerequisite: PSYC 310; PSYC 315. (Or permission of the Department). The relationship between physical and psychological well-being is systematically explored. Topics that may be dealt with include philosophical roots of the mind-body problem, the structural and metabolic basis of both emotional expression and physical activity, the role of aerobic fitness level in altering emotional reaction patterns.

PSYC 375 ***Industrial and Organizational Psychology*** (6 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. A systematic examination of current research and theory about human behaviour as it occurs in the context of work organizations. Possible topics are: motivation to work, communication in organizations, career development, and systems approach to conceptualizing the social psychology of organizations.

PSYC 377 ***Abnormal Development*** (3 credits)
Prerequisite: PSYC 310; PSYC 315; six credits from among PSYC 330, PSYC 336, PSYC 339 previously or concurrently, or permission of the Department. This course covers major theoretical and applied issues in abnormal child development. Topics covered may include gender and sex-role-related problems, anxiety and fear-related problems, conduct disorders and delinquency, childhood anorexia and obesity, hyperactivity and attentional disorders, learning and school-related problems, mental retardation, and childhood psychosis.

PSYC 378 ***Learning in the Classroom*** (6 credits)
Prerequisite: PSYC 310; PSYC 315. A systematic examination of psychological principles and research reports that contribute to an understanding of learning in the school.

PSYC 379 ***Adolescent Development*** (3 credits)
Prerequisite: PSYC 310; PSYC 315; six credits from among PSYC 330, 336, 343, 344, 352, 353 previously or concurrently. This course examines the physical, cognitive, and motivational changes in puberty and early adolescence, their underlying mechanisms, interrelations, and behavioural effects. Topics that may be covered include effects of early and late pubertal onset, parent and peer relations, sex differences and sex roles, and identity issues.

PSYC 380 ***Psychology of Aging*** (3 credits)
Prerequisite: PSYC 310; PSYC 315; six credits from among PSYC 330, 333, 336, 343, 344, 352, 353 previously or concurrently. This course examines psychological development during the later phases of life. The material covered includes methodological issues in the study of aging as well as research findings in such areas as adjustment and well-being, coping styles and stress, age-related changes in memory and learning, the impact of social and family variables on aging, and health and medical issues related to the elderly.

PSYC 381 ***Scaling*** (3 credits)
Prerequisite: PSYC 310; PSYC 315. The theoretical basis and application of scaling methods in psychophysics and social psychology are studied. Quantitative scales for the measurement of attitudes and sensations are derived and constructed. Other topics that may be covered include subjective estimate methods, the law of comparative judgement, unfolding techniques, and signal-detection theory.

PSYC 384 ***Measurement*** (3 credits)
Prerequisite: PSYC 310; PSYC 315. A consideration of the general theory of psychological measurement and its application in the development and use of various psychometric instruments such as achievement, intelligence, aptitude, personality, and interest tests. Derived scores, norms, reliability, and validity of these instruments are discussed in the context of general measurement problems in psychology.

PSYC 390 ***Sexual Differentiation*** (6 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. (Or Introductory Psychology and completion of 30 credits in any degree programme in Arts and Science or enrolment in the Family Life Education Certificate, or permission of the Department). The genetic, hormonal, and social influences shaping the behaviour of men and women from embryonic life through adulthood are examined. Topics discussed include gender identity, sexuality, aggression, and cognitive abilities. The course, primarily approached from the point of view of women, includes an exploration of some of the myths surrounding the differences between men and women.

PSYC 393 ***Psychology of Language and Communication*** (6 credits)
Prerequisite: PSYC 310; PSYC 315. (Or a minimum of three credits from among TESL 211, LING 200, FRAN 381, COMS 240, or permission of the Department). The course deals with the cognitive, developmental, and social aspects of language and human communication. Topics discussed may include psychological consideration of modern linguistic theories, child-language development, second-language development in children and adults, speech perception, biological basis of language, social psychological aspects of human communication.

PSYC 394 ***Community Psychology*** (6 credits)
Prerequisite: PSYC 310 and PSYC 315 previously or concurrently. (Or Introductory Psychology and completion of 30 credits in any degree programme in Arts and Science, or permission of the Department). The course relates psychology to the day-to-day problems of people in society. The contributions of psychology to community leadership in the study of personal, social, cultural, and ecological arrangements are considered as they relate to such institutions as the family, school, prisons, health and welfare, and political structures.

SELECTED PROBLEMS IN PSYCHOLOGY
The Selected Problems in Psychology courses (PSYC 398 and PSYC 399) are designed for students enrolled in a Psychology programme. The material is dealt with in a manner that assumes a background in experimental psychology and, in some cases, specific preparation through prior completion of a related course. The minimal prerequisite is PSYC 310 (Research Methods I) and PSYC 315 (Statistical Analysis in Experimental Psychology I). Students should consult the Psychology Department Course Guide (published yearly) for details concerning available courses.

PSYC 398 ***Selected Problems in Psychology*** (3 credits)

PSYC 399 ***Selected Problems in Psychology*** (6 credits)

PSYC 400 ***Advanced Experimental Psychology*** (6 credits)
Prerequisite: PSYC 310; PSYC 311; PSYC 315; PSYC 316 or equivalent, and permission of the Department. The course provides experience in the design, conduct, analysis, and reporting of independent research in the major areas of psychology. The research is undertaken under the supervision of a faculty member.

PSYC 410 ***Supervised Practicum in Psychology*** (6 credits)
Prerequisite: PSYC 310; PSYC 311; PSYC 315, and/or permission of the Department. A limited number of opportunities for gaining advanced practical experience in various institutional or fieldwork settings are available. The student activities are closely supervised by a qualified faculty member.

PSYC 421 ***Honours Seminar: Selected Topics in Psychology*** (3 credits)
Prerequisite: PSYC 311, 316, and permission of the Department. This seminar critically examines current topics in psychology such as learning, perception, cognition, and language. Emphasis is on current theory as it relates to selected topics from these areas.
NOTE: Students who have received credit for PSYC 420 may not take this course for credit.

PSYC 422 ***Honours Seminar: Selected Issues in Psychology*** (3 credits)
Prerequisite: PSYC 311, 316, and permission of the Department. This seminar critically examines current issues in psychology such as social and developmental processes, motivation, emotion, and the biological bases of behaviour. Selected issues from these areas

are discussed from theoretical perspectives specific to given phenomena.
NOTE: Students who have received credit for PSYC 420 may not take this course for credit.

PSYC 430 ***Honours Thesis*** (6 credits)
Prerequisite: Permission of the Department. Open to final-year Honours students. This course requires the student to propose and conduct a study and submit a thesis written according to the APA format. The work is supervised by a thesis chair selected by the student from within the Department.

PSYC 436 ***Directed Readings in Psychology*** (3 credits)
Prerequisite: PSYC 311, PSYC 316, and permission of the Department. This course is designed for the advanced student wishing to do independent, individually supervised literature research on a specific topic in psychology. This research culminates in a written paper. Students should have a well-defined topic in mind before registering for this course.
NOTE: Students who have received credit for PSYC 438 may not take this course for credit.

PSYC 439 ***Directed Research in Psychology*** (6 credits)
Prerequisite: PSYC 311, PSYC 316, and permission of the Department. Under the supervision of a faculty member, the student carries out an independent research project and reports it in writing. The area of study must be decided upon through consultation with the faculty member.
NOTE: Students who have received credit for PSYC 437 may not take this course for credit.

SPECIAL ADVANCED SEMINARS
Permission of the Department is required for registration in the Special Advanced Seminars (PSYC 498 and PSYC 499). These courses are normally open to Specialization and Honours students who are completing their final 30 credits. The usual minimal prerequisite for these specialized courses is PSYC 310, PSYC 311 (Research Methods I & II) and PSYC 315, PSYC 316 (Statistical Analysis in Experimental Psychology I & II). Because the various topics offered are dealt with in depth at an advanced level, specific preparation through prior completion of a related course may also be required.

PSYC 498 ***Special Advanced Seminar*** (3 credits)

PSYC 499 ***Special Advanced Seminar*** (6 credits)

31.270 RELIGION

Faculty

Chair
IRA ROBINSON, *Professor*

Professor Emeritus
CHARLES DAVIS

Professors
FREDERICK BIRD
MICHEL DESPLAND
JACK LIGHTSTONE
SHEILA McDONOUGH

Hindu Studies Chair
T.S. RUKMANI, Professor

Associate Professors
DAVID MILLER
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LESLIE ORR

Adjunct Professor
JOHN L. ROSSNER

Adjunct Assistant Professors
VICTORIA BENNETT
BARBARA GALLI
HOWARD JOSEPH
KENNETH KATZ

Location

Sir George Williams Campus
Annex FA, Room: 101
(514) 848-2065

Department Objectives

The Department of Religion is dedicated to the academic study of various faiths and of social and cultural phenomena affected by religions. The curriculum includes the comparative study of the major religious traditions of the world as well as many minor traditions. At both the undergraduate and graduate levels, students are encouraged to develop an understanding of at least two religious traditions. Whatever the student's special focus, the informed appreciation of the beliefs and values of other cultures is considered an essential dimension of education for today's world.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Religion
12 In a language related to thesis; or in a related discipline such as Anthropology, English Literature, History, Philosophy, Sociology, Theological Studies, Women's Studies
6 RELI 211[6] or 213[6]
21 From area of primary concentration*
6 From area of secondary concentration*
6 RELI elective credits at the 300 or 400 level
3 RELI 409[3]
6 RELI 410[6]
**See areas of concentration.*

42 BA Major in Religion
6 RELI 211[6] or 213[6]
21 From area of primary concentration*
6 From area of secondary concentration*
6 RELI elective credits at the 300 or 400 level
3 RELI 409[3]
**See areas of concentration.*

30 Minor in Religion
6 RELI 211[6] or 213[6]
24 RELI elective credits (chosen in consultation with the departmental adviser)

60 BA Honours in Judaic Studies
18 In Hebrew language: RELI 201[6], 202[6], 401[3], 402[3]
6 RELI 211[6] or 213[6]
6 RELI 222[6]
9 Chosen from RELI 301[3], 326[3], 327[3], 328[3]
6 Chosen from RELI 329[3], 337[3], 381[3], 394[3], 395[3], 397[3]
6 Chosen from RELI 302[3], 303[3], 304[3], 305[3], 306[3], 313[6], 319[3], 340[3], 341[3], 342[3]
3 RELI 409[3]
6 RELI 410[6]

48 BA Major in Judaic Studies
12 Chosen from Hebrew Language: RELI 201[6], 202[6], 401[3], 402[3]
6 RELI 211[6] or 213[6]

6 RELI 222[6]
9 Chosen from RELI 301[3], 326[3], 327[3], 328[3]
6 Chosen from RELI 329[3], 337[3], 381[3], 394[3], 395[3], 397[3]
6 Chosen from RELI 302[3], 303[3], 304[3], 305[3], 306[3], 313[6], 319[3], 340[3], 341[3], 342[3]
3 RELI 409[3]

30 Minor or Certificate in Judaic Studies
6 RELI 211[6] or 213[6]
6 RELI 222[6]
9 Chosen from RELI 301[3], 326[3], 327[3], 328[3]
9 Chosen from RELI 329[3], 337[3], 381[3], 394[3], 395[3], 397[3], 398[3]

Students may transfer into the Certificate pro gramme up to *12* credits earned in an incomplete degree or Certificate programme or as an Independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

120 Bi-University Major in Judaic Studies
By agreement between the University and Bar-Ilan University, Ramat-Gan, Israel, students may be admitted to a 120-credit bi-university programme designed to provide the academic base for prospective teachers in Jewish Studies programmes at the Primary, Elementary, and Junior High School levels in Canada. Admission to the programme depends upon acceptance by both universities. Successful applicants may spend up to the first 24 months (i.e., two Regular and two Summer sessions) at Bar-Ilan. The rest of the requirements for the degree must be completed at Concordia while the student is registered in the BA Major in Judaic Studies. Further information on the programme may be obtained from the Department of Religion.

Areas of Concentration

A. Asian Religions (21 credits)
21 Chosen from RELI 313[6], 317[3], 319[3], 340[3], 341[3], 342[3], 344[3], 345[3], 346[3], 347[3], 348[3], 349[3], 350[3], 364[3], 383[3], 384[3], 385[3]

B. Christianity (21 credits)
12 RELI 301[3], 302[3], 303[3], 304[3]
9 Christian Studies elective credits at the 300 or 400 level

C. Judaism (21 credits)
9 RELI 222[6], 301[3]
6 Chosen from RELI 326[3], 327[3], 328[3]
6 Judaic Studies elective credits at the 300 or 400 level

D. Women and Religion (21 credits)
3 RELI 233[3]
6 Chosen from RELI 381[3], 382[3], 383[3], 384[3], 385[3], 386[3], 391[3], 392[3]
9 Chosen from RELI 372[3], 380[3], 387[3], 388[3], 389[3], 405[3], 406[3]
3 Women and Religion elective credits at the 300 or 400 level

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Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

RELI 201 ***Introductory Hebrew*** (6 credits)
A beginner's course in Hebrew, with readings of classical and modern texts.
NOTE: Students who have taken Hebrew at the CEGEP level, HEBR 210, HEBR 211, or whose schooling has been conducted in Hebrew will not be admitted to this course.

RELI 202 ***Intermediate Hebrew*** (6 credits)
Prerequisite: RELI 201, HEBR 210, or permission of the Department. This course will include a comprehensive review of Hebrew grammar and syntax with readings of classical and modern Hebrew texts.
NOTE: Students who have taken HEBR 250 or 251 will not be admitted to this course.

RELI 211 ***Understanding Religion*** (6 credits)
A systematic and topical introduction to the study of religion. The purpose of the course is to enable the student to articulate and investigate questions about the meaning and nature of religion. Problems discussed include the elements of religious experience, forms of religious expression and interpretation, religious communities and practices, and the questions raised by the contemporary interfaith dialogue. Materials are taken from a variety of religious traditions.

RELI 213 ***Religious Traditions of the World*** (6 credits)
A historical and comparative overview of the major religious traditions of the world: Judaism, Christianity, Islam, Hinduism, Buddhism, and Chinese religions, this course examines the religious activities and experiences of both women and men with these religions.

RELI 222 ***Introduction to the History and Religion of the Jews*** (6 credits)
This course is designed to give an introduction to the history of the Jewish people from ancient times to the present. It also provides an introduction to the social scientific study of contemporary Jewish practice and belief, including a

survey of the rituals, practices, and ceremonies of contemporary Jews. It examines the continuities and changes in Jewish society, institutions, concepts, and traditions through the ages.

RELI 223 ***Introduction to Christianity*** (3 credits)
A basic introduction to Christianity as one of the major religious traditions of the world, this course provides an overall examination of the enduring structures of Christian belief, its central symbols and rituals; it also indicates how they are articulated in both the Eastern and Western traditions.

RELI 233 ***Introduction to Women and Religion*** (3 credits)
This introduction to the particular problems and issues in the study of women and religion uses case studies from various non-Western traditions. The course presents a survey of the different levels of participation, the complex ritual activities, and the intriguing divine imagery associated with women that are found in many religious traditions. Questions pertaining to the contemporary feminist discourse on such topics as witchcraft, matriarchy, and goddess religions are also explored.

RELI 298 ***Selected Topics in Religion*** (3 credits)

RELI 299 ***Selected Topics in Religion*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

RELI 301 ***Biblical Studies I: The Hebrew Bible*** (3 credits)
An introduction to the methods and results of biblical scholarship with regard to the history, culture, and religion of ancient Israel. Particular attention is given to the major religious affirmations and theological concepts of the Hebrew Bible that have become central in the subsequent development of Judaism.

RELI 302 ***Biblical Studies II: Christian Origins*** (3 credits)
A critical survey of Christian origins, this course focuses on New Testament literature and considers historical setting, history of text, religious and cultural significance. Attention is paid to extra-canonical literature and other relevant sources.

RELI 303 ***History of Christian Thought I*** (3 credits)
This critical introduction to Christian thought from the Fathers to 1500 studies both orthodox and heterodox texts placed in full historical context. Students acquire a basic knowledge of Augustine and Aquinas. Authors studied at length may vary from year to year.

RELI 304 ***History of Christian Thought II*** (3 credits)
This critical introduction to Christian thought from 1500 to the present studies both orthodox and heterodox texts placed in full historical context. Students acquire a basic knowledge of Protestant and Catholic reformers. Authors studied at length may vary from year to year.

RELI 305 ***Christian Social History I*** (3 credits)
This introduction to the social history of Christians from the Church Fathers to 1500 focuses on popular religious belief and practice, the rise of the cult of saints, and the role of images in a pre-literate society.

RELI 306 ***Christian Social History II*** (3 credits)
This introduction to the social history of Christianity from 1500 to the present focuses on the interrelationship of ecclesiastical authority, social change, and popular religious practice during the Reformations, the settlements of the New World, the Enlightenment, and the modern era. The course also explores the challenges posed by the encounter between East and West, science, secularization, and post-modernism.

RELI 307 ***Christian Mystics*** (3 credits)
Prerequisite: Second-year standing. Based on the study of key texts, this course offers a historical examination of a range of mystical and ecstatic experiences within the Christian tradition.

RELI 308 ***Heresy and Dissidence in Christianity*** (3 credits)
Prerequisite: Second-year standing and three credits in Christianity. This course studies heretical movements and other forms of dissidence, including syncretistic movements.

RELI 309 ***Development of Christian Ethics*** (3 credits)
Prerequisite: Second-year standing. The development of Christian ethics is examined against the background of other forms of moral discourse. Topics studied at length include natural law, philosophical ethics, and the ethos of secular societies.

RELI 310 ***Contemporary Ethical Issues: Personal*** (3 credits)
This course identifies and analyses ethical issues arising at the personal level today. Issues are discussed in the context of the interrelationship between moral values and religious convictions. Examples of areas that raise ethical and religious questions for personal existence are: affluence, alienation, work, leisure, aging, drugs.
NOTE: Students who have received credit for RELI 331 may not take this course for credit.

RELI 312 ***Contemporary Ethical Issues: Societal*** (3 credits)
This course identifies and analyses ethical issues arising from social groups today. In discussing the issues, account is taken of the bearing of religious institutions and traditions upon social attitudes and problems. Examples of problem areas that evoke ethical and religious debate are: economic and social inequality, race relations, violence and war, hunger and poverty, population growth.
NOTE: Students who have received credit for RELI 332 may not take this course for credit.

RELI 313 ***Islam*** (6 credits)
A study of the rise and development of Islamic religion and culture from its beginnings in the seventh century to modern times.

RELI 317 ***Islamic Mysticism*** (3 credits)
This course focuses on the major themes of Islamic mystical thought as expressed in philosophical writings and in poetry.
NOTE: Students who have received credit for RELI 374 may not take this course for credit.

RELI 319 ***Modern Islam*** (3 credits)
A study of Islamic religious and social thought in the nineteenth and twentieth centuries. Islamic liberalism, traditionalism, and fundamentalism are compared and contrasted.

RELI 326 ***Ancient Judaism*** (3 credits)
Prerequisite: RELI 222 or 301. The concepts, institutions, and literature of early rabbinic Judaism are viewed against its pre-rabbinic and biblical backgrounds as well as in the context of contemporary non-rabbinic forms of Judaism and of the world of late antiquity. The course also examines the development of rabbinic systems of thought and law as preserved primarily in the Mishnah, early Midrash, and the Palestinian and Babylonian Talmuds. Consideration is given as well to popular rabbinic beliefs and practices and to early rabbinic mysticism.

RELI 327 ***Medieval Jewish Thought and Institutions*** (3 credits)
Prerequisite: RELI 222 or 326. This course examines the intellectual, religious, and social history of selected Jewish communities during the Middle Ages. Both internal Jewish developments and changing Jewish relations with their non-Jewish neighbours are considered.

RELI 328 ***Modern Judaism*** (3 credits)
Prerequisite: RELI 222 or 327. This course surveys the major historical events, sociological and political forces, and intellectual currents which shaped Judaism in the modern period as well as the ways that Jewish communities responded to these forces. Among the topics explored are Emancipation, forms of religious adjustment, anti-semitism, the experience of Jewish communities in Russia and North America, the Holocaust, and Zionism and the state of Israel.

RELI 329 ***Israel: Religion and State*** (3 credits)
This course studies the emergence and development of the state of Israel, from the beginnings of the Zionist movement to the present time. It also explores the major political, social, and intellectual developments in both the pre- and post-state periods. The role of Judaism within the changing state is a primary focus.

RELI 336 ***Sephardic Judaism*** (3 credits)
This course studies the social and spiritual life of the various communities within the Sephardi world. Topics include Judaism under Islam; the expulsion and dispersion; Sephardi-Maghrebi Judaism; modern times in Arab lands; Sephardi life in the new world, Europe, and Israel. In addition, the philosophical, Halakhic, biblical, and mystical works of Sephardi Jews are examined.
NOTE: Students who have received credit for RELI 352 may not take this course for credit.

RELI 337 ***The Social Scientific Study of Jewish Communities*** (3 credits)
Prerequisite: Second-year standing or permission of the Department. By means of the analysis of particular issues, texts, or communities, this course utilizes the methods of the social sciences to analyse Jews and their societies. Issues may include the social scientific analysis of ancient or medieval texts and their social contexts, modern Jewish identity, acculturation in contemporary Israeli society, North American Jewish communities, and Diaspora communities.

RELI 338 ***Holocaust: Historical Circumstances*** (3 credits)
This course examines the historical circumstances that made possible the systematic destruction of European Jewry in the years 1939-45, as well as the process of destruction and the Jewish and world responses to that destruction.
NOTE: Students who have received credit for RELI 357 may not take this course for credit.

RELI 339 ***The Impact of the Holocaust on Religious Thought*** (3 credits)
This course examines the ramifications of the Holocaust in Jewish and Christian thought. Issues discussed include the problem of evil; suffering; the election of Israel; God's relation to the course of human events.
NOTE: Students who have received credit for RELI 358 may not take this course for credit.

RELI 340 ***Hindu Thought and Institutions in the Ancient Period*** (3 credits)
This introduction to the religious concepts, practices, and institutions of ancient India, is

based on the literature of the Vedas, including the Upanisads. The course examines the contribution of various aspects of the Brahmanical tradition to the development of Hinduism, and explores the interaction between religions in the ancient period.
NOTE: Students who have received credit for RELI 320 may not take this course for credit.

RELI 341 ***Hindu Thought and Institutions of the Classical Period*** (3 credits)
This survey of the development of Hinduism in the period 500 B.C.E. to 500 C.E. is based on texts drawn from epic literature and the Sastras. This course also examines the emergence in the classical period of fundamental patterns of Hindu religious practice, social organization, and philosophical enquiry.

RELI 342 ***Hindu Thought and Institutions of the Medieval Period*** (3 credits)
This survey of the developments within Hinduism in the medieval period makes special reference to the emergence of sectarian devotional movements (Vaisnava, Saiva, and Sakta traditions) and to the elaboration of religious institutions and philosophical schools.
NOTE: Students who have received credit for RELI 321 may not take this course for credit.

RELI 344 ***Hindu Mysticism*** (3 credits)
This examination of the various experience and practices of Hindu mystics includes a consideration of Yoga and of other philosophical, theological, and devotional mystical traditions.

RELI 345 ***Major Developments in Modern Hinduism*** (3 credits)
This course focuses on some of the major personalities and movements that have shaped the character of modern Hinduism. The course examines the ideas and activities of reformers, philosophers, and religious and political leaders, beginning in the nineteenth century, and continuing into the twentieth century, with figures such as Gandhi, and into the present day. The course explores the relevance of the thought and methods of these thinkers and activists to contemporary society in India and in the West.

RELI 346 ***The Hindu Diaspora*** (3 credits)
This historical examination of the experience of Hindus outside India makes special reference to the situation and activities of Hindus in Canada. This course explores the ways in which Hindus have attempted to maintain religious practice and cultural identity in pluralistic, non-Hindu societies.

RELI 347 ***Religion and the Arts in South and Southeast Asia*** (3 credits)
This introduction to the religious art of South and Southeast Asia makes special reference to Hindu and Buddhist architecture, sculpture, and painting. The course examines the ways in which sacred art is related to myth and symbol, religious values and goals, ritual, religious experience, and social and political realities.
NOTE: Students who have received credit for RELI 318 may not take this course for credit.

RELI 348 ***Religion and Society in South and Southeast Asia*** (3 credits)
This historical and sociological examination of religion's impact on and intersection with the structures of South and Southeast Asian society, explores such issues as caste and class, gender and family relations, links between religion and the state, and relations between Hindu, Buddhist, and Muslim communities.
NOTE: Student who have received credit for RELI 325 may not take this course for credit.

RELI 349 ***Religions of China and Japan*** (3 credits)
This course examines the history of the religious life of the people of China and Japan, exploring the interaction of Confucian, Taoist, Buddhist, and Shinto practices and beliefs.
NOTE: Students who have received credit for RELI 316 may not take this course for credit.

RELI 350 ***Theravada Buddhism*** (3 credits)
This examination of the early history, doctrine, and practices of Buddhism in India, is based on the Pali Canon, and on the development of Theravada Buddhism in the countries of Southeast Asia up to the present day.
NOTE: Students who have received credit for RELI 314 may not take this course for credit.

RELI 364 ***Mahayana Buddhism*** (3 credits)
This course studies the origins and evolution of the Mahayana Buddhist in India, and the spread and growth of various Mahayana traditions in East Asia. Il examines developments in texts, doctrine, philosophy, ethical ideals, practices (worship and meditation), and institutions.
NOTE: Students who have received credit for RELI 315 may not take this course for credit.

RELI 365 ***Religion and Literature*** (3 credits)
This course deals with the questions raised for the study of religion by works of literature. An account is given of the recent development of interdisciplinary studies in religion and literature, and of the problems of method that have arisen. The relation between the interpretation of religious language, with its use of myth, parable, symbol and metaphor, and literary criticism is explored.

RELI 366 ***Religion and Science*** (3 credits)
This historical investigation of the reasons for the conflict between religion and science in Western culture includes an examination of the relations between religion and science in various religious traditions. It also considers the place of religious resources for contemporary issues of relationship with the natural world.

RELI 367 ***Religions in Contact*** (3 credits)
The experience of pluralism challenges the claim, in many religions, to possess the only true way to salvation. The course studies the historical and contemporary encounters between religions and the various responses generated within these traditions to religious diversity and specifically to each other.

RELI 368 ***Religion in Native Traditions*** (3 credits)
This overview looks at the many diverse religious traditions of the First Nations populations in Canada. The course examines the sacred stories, ceremonial patterns, life cycle rituals, and religious activities in their varied expressions. Consideration is given to the historical interaction of native government with religious practices.

RELI 369 ***Comparative Religious Ethics: West and East*** (3 credits)
This course identifies the ways in which different religious and ideological traditions from West and East consider and deal with ethical issues. Examples of such traditions are Navaho, Jewish, Christian, Islamic, Hindu, Buddhist, Confucian, Humanist, and Communist. The ethical values and ideals found in these traditions, and their influence upon individual life patterns and social organization, are considered.

RELI 371 ***Religion and Healing*** (3 credits)
An examination of the interaction between religious conceptions and practices on the one hand and healing arts on the other. The course considers such phenomena as: shamanism; healing and Christian shrines; native healing rites; folk medicine of the Third World; modern spiritual healing groups; the contemporary dialogue between established forms of medicine, psychiatry, and religion in the twentieth century.

RELI 372 ***The Human Body in Religious Faith and Practice*** (3 credits)
This study of religious attitudes to the human body focuses on the body as a foundation for religious symbolism, religious community and identity, ritual, and religious experience. The course examines these problems with reference to various religious traditions. Issues examined include purification of the body; eating; mortification and mutilation of the body; attitudes towards dead bodies and physical immortality; attitudes towards bodies as gendered; embodied spirituality and incarnation.

RELI 373 ***Comparative Mysticism*** (3 credits)
This comparative study examines primary religious texts from a variety of mystical traditions. Attention is also given to the methodological problems of definition and the representation of mystical experience raised by such modern thinkers as William James, Evelyn Underhill, R.C. Zaehner, W.T. Stace, Ninian Smart, and Steven Katz.

RELI 375 ***Religion in Canada*** (3 credits)
This course examines the role religion has played in the development of Canada as well as its influence in Canadian society, politics, and culture. Attention is paid as well to the interaction of different religious groups in the Canadian context.
NOTE: Students who have received credit for RELI 363 may not take this course for credit.

RELI 376 ***Psychology of Religion*** (3 credits)
This survey looks at various perspectives and methods used in psychology as they are relevant to understanding the role and value of religion for the individual. The course examines the ideas of such figures as William James, Freud, and Jung, among others, and considers such topics as intense religious experience, conversion, images of God, myth and symbol, ritual, and religious and moral development.
NOTE: Students who have received credit for RELI 343 may not take this course for credit.

RELI 378 ***Death and Dying*** (3 credits)
This comparative study examines conceptions of death and dying among the major religious traditions. Attention is paid as well to exploring contemporary notions of death and dying both in so far as we are still informed by traditional conceptions and to the extent that, for many, such notions have lost their cogency.
NOTE: Students who have received credit for RELI 370 may not take this course for credit.

RELI 379 ***Religion and Contemporary Psychic Experience*** (3 credits)
An examination of the contemporary varieties of psychic experience being claimed by persons in the modern world and reported in popular literature, sociological surveys, and medical or psychological literature. This material is critically evaluated in the light of the theories of C.G. Jung, William James, and others.
NOTE: Students who have received credit for RELI 465 may not take this course for credit.

RELI 380 ***Sexuality in the History of Religions*** (3 credits)
This historical examination looks at the development of attitudes towards sexuality within diverse religious traditions. Topics include human reproduction, gender roles and identity, celibacy, sexual variance, birth control, abortion, and homosexuality.
NOTE: Students who have received credit for RELI 335 may not take this course for credit.

RELI 381 ***Women and Religion: Judaism*** (3 credits)
Prerequisite: Second-year standing or permission of the Department. This course explores the status and religious roles of women within the Judaic tradition. Its focus is on the practice of the religion, especially the ritual and legal spheres. The relationship between common

practice, popular attitudes, and formal legal principles is examined in order to inquire into issues of gender and religion.

RELI 382 ***Women and Religion: Christianity*** (3 credits)
The focus of the course is the role of women and the conflicting patterns of gender construction in the history of Christianity. Through a critical use of primary and secondary sources, both visual and textual, the course explores the sources of women's power and subordination in order to illuminate the relationship between gender and the Christian tradition.

RELI 383 ***Women and Religion: Islam*** (3 credits)
The focus is on the writings of contemporary Muslim women authors, and on the debates relating to gender taking place in many Muslim countries.

RELI 384 ***Women and Religion: Hinduism*** (3 credits)
Prerequisite: Second-year standing or permission of the Department. This course examines the roles of women in Hindu religious life. The course focuses particularly on the impact of historical change; on the activities and experience of women in India, in the course of the last three thousand years; and on the relation between Hindu conceptions of "the feminine" and women's situation.

RELI 385 ***Women and Religion: Buddhism*** (3 credits)
Prerequisite: Second-year standing or permission of the Department. This course explores the situation, activities, and experiences of women within Buddhism. Using an historical approach, the course examines the circumstances of women in early Buddhism, and traces subsequent developments in India, Tibet, Southeast Asia, the Far East, and the West, up to the present day.

RELI 386 ***Native North American Women and Their Religious Traditions*** (3 credits)
In the traditional religious systems of the First Nations people, women have had various roles, status, and experience. This overview of the different traditions includes life cycle rituals and the female perspective, female shamans and leadership, female ancestor and spirit stories, and the construction of gender in tribal society.

RELI 387 ***Goddesses and Religious Images of Women*** (3 credits)
This comparative survey of female divinity and feminine imagery studies various religious traditions. Among the issues to be explored are the imaging of goddesses as mothers; the conception of forces like fertility, energy, materiality, and knowledge as feminine; the correspondences and relations between goddesses and women; and the contemporary feminist recovery of the Goddess.

RELI 388 ***Religious Women: Leaders, Models, and Rebels*** (3 credits)
This course is an exploration of women's roles in religious traditions around the world — as nuns, teachers, saints, religious authorities and leaders, and founders of new religious movements. Special consideration is given to the experiences and activities particular to women within various religions, and the way these are linked to women's diverse responses to "establishment" religion — rejecting it, changing it, participating in it, presenting alternatives to it.

RELI 389 ***Women as Ritual Experts*** (3 credits)
This comparative examination of the contexts and patterns of women's ritual lives looks at various religious traditions. In addition to considering women's activities in formal or public ritual contexts, this course focuses especially on the importance of women as ritual specialists and authorities in the context of the home.

RELI 391 ***Women and Jewish History I*** (3 credits)
This course examines the lives and experiences of Jewish women from the Late Antique period through and including the medieval period. Historical and geographic variations are highlighted as well as the differences between communal standards and individual exploits and accomplishments. Through a critical reading of Jewish historical sources, questions of methodology and scholarship are probed.

RELI 392 ***Women and Jewish History II*** (3 credits)
This course examines the lives and experiences of Jewish women in the modern period. The immigration to North America and the subsequent development of the Jewish community provides the framework for investigating Jewish women's contribution to and encounter with modern Jewish life. The development of Jewish feminism and the consequent changes amongst the different denominations completes this survey.

RELI 393 ***Special Topics in Religion and Culture*** (3 credits)
Prerequisite: Permission of the Department. This course affords an opportunity for the advanced student to study a special theme or problem in religion and culture.

RELI 394 ***Studies in Judaic Law*** (3 credits)
Prerequisite: RELI 222 or 326 or 327. By means of the analysis of particular issues and texts, this course explores the history and character of Judaic Law. Attention is given to the literatures, institutions, and social contexts out of which Judaic Law has developed.

RELI 395 ***Studies in Jewish Philosophy*** (3 credits)
Prerequisite: RELI 222 or 327 or 328. By means of the analysis of particular issues,

thinkers, and texts, this course explores the character of Jewish philosophy. Issues in Jewish philosophy that may be examined include the relationship between faith and reason, the understanding of God, Judaism and the inter-human, the powers and limits of philosophical understanding.

RELI 397 ***Studies in Jewish Mysticism*** (3 credits)
Prerequisite: RELI 222 or 326 or 327. This survey of the Jewish mystical tradition places emphasis on the study of representative Jewish mystical texts. It includes the development of the messianic idea, Merkava mysticism, Hasidei Ashkenaz, Kabbala in Provence and Spain, Lurianic Kabbala, Sabbatianism, and Hasidism.
NOTE: Students who have received credit for RELI 354 may not take this course for credit.

RELI 398 ***Selected Topics in Religion*** (3 credits)

RELI 399 ***Selected Topics in Religion*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

RELI 401 ***Studies in Classical Hebrew Texts*** (3 credits)
Prerequisite: RELI 202, HEBR 250, or permission of the Department. A reading of representative selections of classical Hebrew texts. Attention is paid to the historical and philosophical background of the texts.

RELI 402 ***Studies in Modern Hebrew Texts*** (3 credits)
Prerequisite: RELI 202, HEBR 250, or permission of the Department. A reading of representative selections of modern Hebrew literature as well as modern Hebrew scholarship.

RELI 403 ***Questions from the Christian Tradition*** (3 credits)
Prerequisite: Six credits in 300-level Christian Studies courses. This thematic study examines enduring religious questions and controversies in the history of Christian West, such as faith and reason, history and eschatology, freedom and authority.
NOTE: Students who have received credit for RELI 362 may not take this course for credit.

RELI 404 ***Questions on Christianity and Modernity*** (3 credits)
Prerequisite: Six credits in 300-level Christian Studies courses. The course examines some aspects of the complex relationship between Christianity and the modern ethos. Topics include individualism, secularisation, post-modernism.

RELI 405 ***Approaches to the Study of Women and Religion: Advanced Seminar*** (3 credits)
Prerequisite: Six credits in Women and Religion courses. This examination of the work of various feminist theoreticians and theologians explores how their theoretical insights may be applied to the practice of doing research on women in religion. The course examines feminist reactions to, critiques of, and approaches to understanding historical religions, and explores ways in which these responses produce new ideas about sources to use and questions to ask in our study of these religions, and new possibilities for the meaning and relevance of religion.

RELI 406 ***Feminist Hermeneutics and Scripture*** (3 credits)
This feminist critical reading of sacred texts focuses on the rediscovery of women in holy scriptures. This course is for the advanced student able to work with primary sources. Different texts may be considered such as Hebrew Bible, New Testament, Koran, Hindu and Buddhist scriptures.

RELI 409 ***Methodology and the Study of Religion*** (3 credits)
This course examines the various methodological approaches that inform the comparative study of religion. Questions investigated pertain to the collection and interpretation of evidence, the types of resources available and techniques used, the complex differences between men's and women's religious experiences and expressions, as well as the impact of significant theoretical approaches on the analysis of religion.

RELI 410 ***Honours Seminar*** (6 credits)
Prerequisite: Honours standing in Religion or Judaic Studies. The student works with an individual faculty member in a particular field of religious or Judaic studies. Students are asked to produce a sustained piece of written work to be read by their adviser and at least one other member of the Department.
NOTE: Students who have received credit for RELI 499 may not take this course for credit.

RELI 493 ***Religious Institutions*** (3 credits)
Prerequisite: Permission of the Department. Seminar on a particular period or institution in the history of religion.

RELI 495 ***Religious Thinkers*** (3 credits)
Prerequisite: Permission of the Department. Seminar on a particular thinker or school of thought in the history of religion.

RELI 498 ***Advanced Topics in Religion*** (3 credits)

RELI 499 ***Advanced Topics in Religion*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.280 RUSSIAN STUDIES

Concordia offers a Minor programme in Russian Studies for students interested in the politics, economics, and history of Russia. The language component of the programme is designed to establish basic skills required for scholarly work in Russian. Courses are offered by specialists in the respective disciplines. See separate departmental entries for details on courses in the programme.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

24	**Minor in Russian Studies***
6	RUSS 330[6]
6	HIST 377[3], 378[3]
12	Chosen from ECON 370[6]; HIST 441[6]; PHIL 334[3], 335[3]; POLI 323[3], 333[3], 436[6], 475[3]**; RUSS 400[6]

**Admission suspended for 1996-97.*
***This course is given alternate years.*

31.290 SCIENCE/MATHEMATICS FOR TEACHERS

CERTIFICATE IN THE TEACHING OF SCIENCE (Elementary School Level)

Programme Director
JUDITH WOODSWORTH, *Associate Professor and Vice-Dean*

The Faculty of Arts and Science offers a Certificate in the Teaching of Science (Elementary School Level) for the professional development of teachers interested in science. Practising teachers are offered the opportunity to improve their knowledge of science in order to help them teach modern science more effectively. The presentation will generally be in workshop form, with emphasis on assignments that develop activities for classroom use. Courses will be offered on- and off-campus during the winter and summer months, subject to sufficient demand and the availability of suitable instructors.

Admission Requirements

Admission to this programme is open to teachers who already hold either a General Elementary Licence or an Elementary Special Education Licence. Under certain conditions individuals certified to teach at the Secondary Level may be admitted into this programme depending on their educational background and teaching experience.

Programme

30 Certificate in the Teaching of Science (Elementary School Level)

30 SCIE 315[6], 316[6], 317[6], 318[6], 319[6]

NOTE: Where students have completed similar courses in previous studies, pro-tanto credits may be approved up to a maximum of 12 credits. In some cases, students with fewer than 12 pro-tanto credits may, with approval of the Faculty of Arts and Science obtained upon the recommendation of the programme director, be permitted to take courses in related areas for credit towards the Certificate. However, at least 18 of the credits must be taken within the programme.
Science courses in this programme have been renumbered.
** Admission suspended for 1996-97*

Courses

SCIE 315 ***Philosophy and Methodology of Teaching Science, Elementary Level*** (6 credits)
A study of the role, impact, and responsibility of science at the Elementary School Level; a study of science programme design, teaching processes, and classroom activities at the Elementary Level.
NOTE: This course is available only to practising teachers.
NOTE: Students who have received credit for SCIE 314 may not take this course for credit.

SCIE 316 ***Matter and Energy*** (6 credits)
Prerequisite: SCIE 315. States and properties of matter, change of state, force, common machines, mass, volume, expansion, gravitation, heat, light, sound, electricity, magnetism, other sources of energy, conservation of energy.
NOTE: This course is available only to practising teachers.
NOTE: Students who have received credit for SCIE 310 may not take this course for credit.

SCIE 317 ***The Human Environment*** (6 credits)
Prerequisite: SCIE 315. Temperature, soil, water, air, atmosphere, reproduction, heredity, erosion, weather, nitrogen cycles, pollution, ecology and ecosystems.
NOTE: This course is available only to practising teachers.
NOTE: Students who have received credit for SCIE 311 may not take this course for credit.

SCIE 318 ***Our Earth and the Universe*** (6 credits)
Prerequisite: SCIE 315. Time cycles, volume, density, constitution and properties of the solar system, gravity, seasons, water, and carbon cycles.
NOTE: This course is available only to practising teachers.
NOTE: Students who have received credit for SCIE 312 may not take this course for credit.

SCIE 319 ***Living Things and Their Activities*** (6 credits)
Prerequisite: SCIE 315. The cellular structure of living things, food chains, plants, animals, germination, growth, soil, water, respiration, nutrition, life cycles. Classification into families, communities, and populations.
NOTE: This course is available only to practising teachers.
NOTE: Students who have received credit for SCIE 313 may not take this course for credit.

CERTIFICATE IN MATHEMATICS FOR TEACHERS (Elementary School Level)

Programme Director
JUDITH WOODSWORTH, *Associate Professor and Vice-Dean*

Admission Requirements

Admission to this programme is open to teachers who already hold either a General Elementary Licence or an Elementary Special Education Licence. Under certain conditions, individuals certified to teach at the Secondary Level may be admitted into this programme depending on their educational background and teaching experience.
The Department of Mathematics and Statistics offers a Certificate in Mathematics for Teachers (Elementary School Level) for the professional development of teachers interested in mathematics. This programme was designed in accordance with the programme-cadre for Elementary Mathematics issued by the General Directorate of Elementary and Secondary Education and approved for "perfectionnement" by the Higher Education Branch of the Department of Education on February 15, 1974. Practising teachers are offered the opportunity to improve their knowledge of mathematics in order to help them teach mathematics more effectively. The presentation will generally be in workshop form with emphasis on assignments which develop activities for classroom use. Courses will be offered on- and off-campus during the winter and summer months subject to demand and the availability of instructors.

Programme

30 Certificate in Mathematics for Teachers (Elementary School Level)
6 MATH 305[6]
24 Chosen from MATH 300[6], 301[6], 302[6], 303[6], 304[6], 307[3], 309[3]

NOTE: Where students have completed similar courses in previous studies, pro-tanto credits may be approved up to a maximum of 12 credits. In some cases, students with fewer than 12 pro-tanto credits may, with approval of the Faculty of Arts and Science obtained upon the recommendation of the programme director, be permitted to take courses in related areas for credit towards the Certificate. However, at least 18 of the credits must be taken within the programme.
** Admission suspended for 1996-97*

CERTIFICATE IN MATHEMATICS FOR TEACHERS (Junior Secondary School Level)

Programme Director
JUDITH WOODSWORTH, *Associate Professor and Vice-Dean*

Admission Requirements

Admission to this programme is open to teachers who already hold a teaching licence at the Secondary Level. This licence may be a Generalist Licence or a Mathematics Specialist Licence. The Department of Mathematics and Statistics offers a Certificate in Mathematics for teachers who teach mathematics at the Junior High School Level. Some of the courses offered have been specially designed to deal with new subject matter which is being introduced into the Secondary School curriculum, as well as with aspects of mathematical pedagogy necessary for the teaching of this material. This programme was approved for "perfectionnement" on February 14, 1974, by the Higher Education Branch of the Department of Education.

Programme

30 Certificate in Mathematics for Teachers (Junior Secondary School Level)
15 MATH 400[3], 401[6], 404[6]
15 Chosen from MATH 402[3], 403[3], 405[3], 406[3], 408[3], 409[3], 410[3], 411[3], 417[3], 419[3]

NOTE: In some cases where students have completed similar mathematical courses in previous studies, the Mathematics and Statistics Department may modify a student's programme to meet his professional requirements. It may grant pro-tanto credits up to a maximum of 12 credits.
** Admission suspended for 1996-97*

Courses

MATH 300 *Mathematics for Elementary School Teachers I* (6 credits)
This course and the following course, MATH 301, are designed to cover the main mathematical topics in the programme-cadre for Elementary Schools. In both courses, the study of the mathematical content is linked to thorough consideration of classroom applications. A project is included among the assignments in both courses. In both courses,

the mathematical language of sets, relations, functions, and operations is applied where appropriate, and various modes of graphical representation used. Counting numbers and systems of numeration, number operations, factors and multiples, numbers as measures, classification, and properties of geometrical shapes.
NOTE: This course is available only to practising teachers.

MATH 301 ***Mathematics for Elementary School Teachers II*** (6 credits)
This course and the preceding course, MATH 300, are designed to cover the main mathematical topics in the programme-cadre for Elementary Schools. In both courses, the study of the mathematical content is linked to thorough consideration of classroom application. A project is included among the assignments in both courses. In both courses, the mathematical language of sets, relations, functions, and operations is applied where appropriate, and various modes of graphical representation used. The extension of the number system to fractions, decimals, and signed numbers. Equalities and inequalities, bases of symmetry, and geometric transformations.
NOTE: This course is available only to practising teachers.

MATH 302 ***Transformation Geometry*** (6 credits)
Prerequisite: MATH 301, or permission of the Department. A more advanced study of symmetry and geometric transformations, applications in two and three dimensions, an overview of a K-6 programme of geometry.
NOTE: This course is available only to practising teachers.

MATH 303 ***Measurement*** (6 credits)
Prerequisite: MATH 300, or permission of the Department. A more advanced study of measures and measurement, descriptive statistics and elementary notions of probability, an overview of a K-6 programme of measurement.
NOTE: This course is available only to practising teachers.

MATH 304 ***Mathematics for Elementary School Teachers III*** (6 credits)
Prerequisite: Permission of the Department. More advanced mathematical studies to meet the needs of potential developments in the Elementary School curriculum.
NOTE: This course is available only to practising teachers.

MATH 305 ***Psychology of Mathematics Education*** (6 credits)
Prerequisite: Any three chosen from MATH 300, 301, 302, 303, 304; or permission of the Department. The content of the course is selected from those areas of psychological theory and research which have implications for the teaching of mathematics. It normally includes: psychological theories of cognition, studies of mathematical learning in children, motivation, applications of research to the classroom.
NOTE: This course is available only to practising teachers.

MATH 307 ***Microcomputer Applications to Mathematics Education I*** (3 credits)
Prerequisite: Permission of the Department. Elements of programming of the LOGO language. An introduction to TURTLE graphics. Recursion as a simplifying and generating tool. Applications to the teaching of elementary arithmetic and geometry. Design of programmes to produce graphic displays and simple instructional sequences.
NOTE: This course is available only to practising teachers.

MATH 309 ***Microcomputer Applications to Mathematics Education II*** (3 credits)
Prerequisite: MATH 207*, or permission of the Department. More advanced programming in the LOGO language. Further study of TURTLE graphics. List processing, editing, and developing procedures. Applications to the teaching of algebra and geometry. Production of interactive programmes. Consideration of LOGO as an educational environment.
**See §31.200 for a description of MATH 207.*
NOTE: This course is available only to practising teachers.

MATH 400 ***Seminar on the Teaching of Mathematics*** (3 credits)
Prerequisite: Permission of the Department. This course is conducted in the form of a workshop and examines alternative methods of presentation of mathematical ideas at the Secondary School Level. It studies relevant aspects of the psychological development of the adolescent in the context of existing mathematics curricula.
NOTE: This course should be taken at the end of the programme and is available only to practising teachers.

MATH 401 ***Functions*** (6 credits)
Prerequisite: Permission of the Department. This course examines the topics in a traditional functions course: the concept of a function and its inverse. Linear and quadratic functions, rational functions, exponential, logarithmic, and trigonometric functions. Graphing is stressed. A historical overview is given. Methods of teaching these topics and of preparing Secondary School students for a functions course are discussed.
NOTE: This course is available only to practising teachers.

MATH 402 ***Algebra I*** (3 credits)
Prerequisite: MATH 401, or equivalent previously or concurrently. Progressions,

combinations, permutations, Binomial theorem, mathematical induction, inequalities, polynomials, Cartesian, and polar forms of complex numbers; conics.
NOTE: This course is available only to practising teachers.

MATH 403 ***Calculus I*** (3 credits)
Prerequisite: MATH 401, or equivalent. Functional notation, limits, and continuity. Differentiation of polynomials. The power, product, quotient, and chain rules. Implicit differentiation. Higher derivatives. Mean value theorem, Rolles theorem. Maxima and minima. Applications: tangents to plane curves, related rates. The differential, use in finding approximations. Indefinite and definite integrals, areas and volumes.
NOTE: This course is available only to practising teachers.

MATH 404 ***Geometry for Teachers*** (6 credits)
Prerequisite: MATH 401, or equivalent. Certain fundamentals of Cartesian, vector and transformation geometry. Distance preceiving motions in the plane, affine transformations with applications in Euclidean geometry. Projective transformations and applications to conics. Applications of these methods to topics presented as informal geometry in grades 7-10.
NOTE:This course is available only to practising teachers.

MATH 405 ***Calculus II*** (3 credits)
Prerequisite: MATH 403. Differentiation and integration of trigonometric functions. Derivatives of inverse trigonometric functions, logarithmic functions, and exponential functions. Methods of integration by parts, by substitution, by separation into partial fractions. Improper integrals, L'Hopital's Rule. Series: convergence tests, Maclaurin and Taylor theorems.
NOTE: This course is available only to practising teachers.

MATH 406 ***Algebra II*** (3 credits)
Prerequisite: MATH 401, or equivalent. Systems of equations, determinants, Cramer's rule. Matrices, operations on matrices, the inverse matrix. Gauss-Jordan method. Matrix transformations. Linear programming.
NOTE: This course is available only to practising teachers.

MATH 408 ***Geometry for Teachers*** (3 credits)
Prerequisite: MATH 401, or permission of the Department. Studies designed to meet more advanced mathematical and professional needs of students in the light of potential developments in the geometry curriculum at the Junior Secondary School Level.
NOTE: This course is available only to practising teachers.

MATH 409 ***Computational Mathematics I*** (3 credits)
Prerequisite: Permission of the Department. Introduction to the microcomputer as a teaching and learning environment. Elements of programming. Editing and debugging. Flow charts and problem analysis. Applications to the teaching of arithmetic and algebra; simple data processing. Design of simple instructional sequences.
NOTE: This course is available only to practising teachers.

MATH 410 ***Curriculum Seminar*** (3 credits)
Prerequisite: Permission of the Department. Conducted in the form of a workshop. Examines arithmetic, algebraic, and geometric aspects of the mathematics curricula, grades 7-11. Critical examination of various textbooks and pedagogic approaches used in the schools.
NOTE: This course is available only to practising teachers.

MATH 411 ***Probability and Statistics for Teachers*** (3 credits)
Prerequisite: MATH 401. Elementary probability, permutations and combinations, binomial and normal distribution. Analysis and organization of statistical data. Tests of hypotheses. Confidence limits. Introduction into linear regression and correlations. Lectures and laboratory.
NOTE: This course is available only to practising teachers.
NOTE: Students who have received credit for MATH 407 may not take this course for credit.

MATH 417 ***Diagnosis and Remediation*** (3 credits)
Prerequisite: Permission of the Department. Diagnosis and remediation in the light of current research in psychology and the learning of mathematics.
NOTE: This course is available only to practising teachers.

MATH 419 ***Computational Mathematics II*** (3 credits)
Prerequisite: MATH 409, or permission of the Department. More advanced programming. Use of the microcomputer for problem solving and simulation. Applications to the teaching of algebra and functions. Uses of the computer in the school environment. Individual programming projects.
NOTE: This course is available only to practising teachers.

31.300 SCIENCE AND HUMAN AFFAIRS

Faculty

Acting Director
ALAN E. NASH, *Associate Professor*

Location

Sir George Williams Campus
J.W. McConnell Building, Room: LB 641
(514) 848–2050

Programme Objectives

The Science and Human Affairs programme explores the social dimensions of science and technology. It provides an interdisciplinary examination of the cultural, economic, political, ethical, and environmental aspects of scientific and technological change. The curriculum is organized into three streams: the history and philosophy of science, the social and ethical aspects of science and technology, and the human dimensions of environmental change.
The programme prepares students for the growing number of non-science careers requiring an understanding of scientific research, technical innovation, and industrial development as well as an understanding of their social implications. It also provides science and engineering students with the opportunity to explore the social dimensions of their disciplines.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
Students should consult with the programme coordinator prior to registering for Science and Human Affairs courses.

60 BA Specialization in Science and Human Affairs

12 SCHA 250[3], 251[3], 253[3], 254[3]
3 Chosen from ECON 221[3]; GEOL 325[3]; MATH 207[3]; PSYC 315[3]; SOCI 212[3], 213[3]
9 Chosen from PHYS 210[6]; BIOL 200[6], 201[3] or CHEM 205[3], 206[3], 208[3], with not more than six credits in any single discipline
18 SCHA 353[3], 354[3], 355[3], 356[3], 453[6]
12 Chosen from SCHA 260[3], 351[6], 452[6], or cognates from list below*
6 SCHA 454[6]

42 BA Major in Science and Human Affairs

12 SCHA 250[3], 251[3], 253[3], 254[3]
3 Chosen from ECON 221[3]; GEOL 325[3]; MATH 207[3]; PSYC 315[3]; SOCI 212[3], 213[3]
9 Chosen from PHYS 210[6]; BIOL 200[6], 201[3] or CHEM 205[3], 206[3], 208[3], with not more than six credits in any single discipline
12 Chosen from SCHA 260[3], 351[6], 353[3], 354[3], 355[3], 356[3], 452[6], 453[6], or cognates from list below*, with at least six SCHA credits
6 SCHA 454[6]

30 Minor in Science and Human Affairs

12 SCHA 250[3], 251[3], 253[3], 254[3]
18 Chosen from SCHA 260[3], 351[6], 353[3], 354[3], 355[3], 356[3], 452[6], 453[6], 454[6], or cognates from list below*, with at least six SCHA credits

**Cognates relating to the history and philosophy of science include: BIOL 320, 321; GEOG 391; GEOL 208; MATH 215, 216, 397; PHIL 328, 329, 421; PSYC 320; SOCI 406, 407; SCOL 251, 252, 253, 270. Those more broadly concerned with science and society include: BIOL 210; CHEM 304; POLI 363, 381; ANTH 325; THEO 452.*
Cognates treating environmental issues include: CHEM 302; ECON 391, 396; GEOG 211, 271, 317.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

SCHA 250 ☞ ***Introduction to Science and Human Affairs I*** (3 credits)
The social and historical context of scientific and technological change. The reciprocal interactions of science with government, ideology, economic development, religion, literature, and social theory; science and the city; science and the control of human life; science and human liberation; new definitions of scientific responsibility may be considered.
NOTE: Students who have received credit for INTE 250 may not take this course for credit.

SCHA 251 ***Introduction to Science and Human Affairs II*** (3 credits)
A continuation of SCHA 250. This course may be taken independently.
NOTE: Students who have received credit for INTE 251 prior to 1990–91 may not take this course for credit.

SCHA 253 ***Environmental Issues I*** (3 credits)
The scientific, social, and cultural nature of one's relationship to the environment. Emphasis is placed on pollution, conservation, population resources, and human ecology.
NOTE: Students who have received credit for INTE 253 or URBS 253 prior to 1990–91 may not take this course for credit.

SCHA 254 ***Environmental Issues II*** (3 credits)
A continuation of SCHA 253. This course may be taken independently.
NOTE: Students who have received credit for INTE 254 or URBS 254 prior to 1990–91 may not take this course for credit.

SCHA 260 ***Science and Culture in the Western Tradition*** (3 credits)
Surveys the place of science in Western culture from the ancient Greeks until the present day. The aim of the course is to acquaint a non-specialist audience with how a scientific world-view has profoundly shaped modern-day society.

SCHA 298 ***Selected Topics in Science and Human Affairs*** (3 credits)

SCHA 299 ***Selected Topics in Science and Human Affairs*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SCHA 351 ***Astronomy, Cosmology and the Space Age*** (6 credits)
The nature of the universe as interpreted by relevant scientific theories; cosmology and the shape, size, and structure of the universe; possibility of intelligent life in the universe; social implications of space flight.
NOTE: Students who have received credit for INTE 351 prior to 1990–91 may not take this course for credit.

SCHA 353 ***Science and Society: From Ancient Times Until 1789*** (3 credits)
Prerequisite: SCHA 250; SCHA 251, or permission of the director. This course surveys the history of science from the ancient Greeks until the French revolution, with an emphasis on the social history of science.

SCHA 354 ***Science and Society: Since 1789*** (3 credits)
Prerequisite: SCHA 250; SCHA 251, or permission of the director. This course surveys the history of science from the French revolution until the present day, with an emphasis on the social history of science.

SCHA 355 ***Technology and Society: From Ancient Times Until 1780*** (3 credits)
Prerequisite: SCHA 250; SCHA 251. This course deals with the social role and impact of technology from the ancient Greeks until the industrial revolution.

SCHA 356 ***Technology and Society: Since 1780*** (3 credits)
Prerequisite: SCHA 250; SCHA 251. This course deals with the role and impact of technology in Western society from the industrial revolution until the present.

SCHA 398 ***Selected Topics in Science and Human Affairs*** (3 credits)

SCHA 399 ***Selected Topics in Science and Human Affairs*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SCHA 452 ***Advanced Study in the History of Science*** (6 credits)
Prerequisite: Permission of the director. Seminar in a specific question in the history of science. The emphasis is on encouraging students to conduct historical investigation on their own under a professor's guidance. The specific content varies from year to year depending on the instructor.

SCHA 453 ***Science and Public Policy*** (6 credits)
Prerequisite: SCHA 250; SCHA 251, or permission of the director. This course deals with those public policy issues which involve a major component of science and technology, i.e., energy, environment, resources, health, etc. The course also covers the general relationships of science and government relating to the making of science and technology policy particularly emphasizing the Canadian context, but including such topics as technology aid and transfer.
NOTE: Students who have received credit for INTE 453 prior to 1990–91 may not take this course for credit.

SCHA 454 ***Seminar in Science and Human Affairs*** (6 credits)
Prerequisite: Six credits from SCHA 353, 354, 355, 356 and enrolment in Major or Specialization in Science and Human Affairs, or permission of the director. This seminar affords an opportunity for intensive examination of an explicitly interdisciplinary theme.
NOTE: With the permission of the director, students may take this course twice for credit

provided that a different subject is dealt with the second time, and will register under SCHA 455. NOTE: Students who have received credit for INTE 454 prior to 1990–91 may not take this course for credit.

SCHA 455 ***Seminar in Science and Human Affairs*** (6 credits)
Prerequisite: Permission of the director.
NOTE: Students who have received credit for SCHA 454 may register for SCHA 455 provided the subject matter is different.
NOTE: Students who have received credit for INTE 455 prior to 1990–91 may not take this course for credit.

SCHA 498 ***Advanced Topics in Science and Human Affairs*** (3 credits)

SCHA 499 ***Advanced Topics in Science and Human Affairs*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.310 SOCIOLOGY AND ANTHROPOLOGY

Faculty

Chair
E. SUSAN HOECKER-DRYSDALE, *Associate Professor of Sociology*

Sociology
Professors
JOHN D. JACKSON
JOSEPH SMUCKER

Associate Professors
H. TAYLOR BUCKNER
GERALD DEWEY
JOHN P. DRYSDALE
DANIELLE GAUVREAU
EFIE GAVAKI
HERBERT HORWICH
CAROLINE KNOWLES
GUY LeCAVALIER
BRIAN M. PETRIE
WILLIAM C. REIMER
FRANCES SHAVER
ANTHONY J. SYNNOTT
JULIO TRESIERRA

Assistant Professor
GREG NIELSEN

Anthropology
Associate Professors
SALLY COLE
CHANTAL COLLARD
HOMA HOODFAR
DAVID HOWES
CHRISTINE JOURDAN
DOMINIQUE LEGROS

Sociology and Anthropology
Associate Professor
VERED AMIT-TALAI

Location

Loyola Campus
Vanier Extension, Room: VE 223
(514) 848-2155

Sir George Williams Campus
J.W. McConnell Building, Room: LB 681
(514) 848-2140

Department Objectives

Sociology and Anthropology examine the processes of social and cultural life in diverse human societies, past and present. These core disciplines of the social sciences are closely linked to the humanities, since various aspects of culture and society concern them all.
The celebration of diversity — cultural, ethnic, and racial — among the students and faculty as well as in the subject matter, is a hallmark of the Department. It offers a full range of undergraduate programmes, including joint programmes in both disciplines.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Sociology
3 SOCI 203[3]*
6 SOCI 212[3], 213[3]
3 200-level ANTH credits
6 SOCI 300[6]
6 SOCI 408[6]
6 SOCI 409[6]
6 SOCI 410[6]
6 SOCI elective credits
9 300- or 400-level SOCI credits
9 400-level SOCI credits

60 BA Specialization in Sociology
3 SOCI 203[3]*
6 SOCI 212[3], 213[3]
3 200-level ANTH credits
6 SOCI 300[6]
6 Chosen from SOCI 310[6], 315[6], 410[6]
6 SOCI 408[6]
12 SOCI elective credits (maximum of six credits from the 200 level)
12 300- or 400-level SOCI credits
6 400-level SOCI credits

60 BA Joint Specialization in Anthropology and Sociology
See Anthropology

42 BA Major in Sociology
3 SOCI 203[3]*
3 SOCI 212[3]
3 200-level SOCI credits
3 200-level ANTH credits
6 SOCI 300[6]
6 Chosen from SOCI 310[6], 315[6]
9 SOCI elective credits (maximum of six credits from the 200 level)
9 300- or 400-level SOCI credits

42 BA Major in Community and Ethnic Studies

12 ANTH 202[3]; SOCI 203[3*], 212[3]; ANTH/SOCI 230[3]
6 Chosen from ANTH 310[6]; SOCI 300[6]
9 Chosen from ANTH 303[3]; SOCI 330[6], 336[3], 352[3], 437[3]; ANTH/SOCI 276[6], 315[6], 341[3], 353[3], 381[3], 383[3]
3 Chosen from cognate courses outside the Department which reflect an appropriate cross-cultural perspective and/or subject matter. This course will be chosen in consultation with the Director of the Centre for Community and Ethnic Studies.
12 ANTH/SOCI 432[6], 451[6]

30 Minor in Sociology

3 SOCI 203[3*]
6 200-level SOCI credits
6 Chosen from SOCI 300[6], 310[6], 315[6]
6 SOCI elective credits
9 300-level SOCI credits

**Students exempted from SOCI 203[3] are required to take three credits from SOCI 200- or 300-level courses.*

Certificate in Community and Ethnic Studies

The 30-credit Certificate programme is designed to provide basic conceptual and research skills for those involved in work with a community or ethnic focus.

Students wishing to enter the programme must consult with the director of the Centre for Community and Ethnic Studies. All students are required to take the Seminar and Practicum in Community and Ethnic Studies. Additional courses are selected from offerings in Sociology, Anthropology, and several other university disciplines.

Admission Requirements

General admission requirements are listed in §13.

Students must have completed SOCI 203 and ANTH 202 or equivalent courses. Students should be actively involved in community service related to community or ethnic topics, either as staff or as volunteers or members of boards, committees, or councils of community organizations and agencies. The programme is structured so that students may enrol on a part-time basis.

Students should be proficient in at least two languages, English and either French or the language of the minority community with which they wish to work.

30 Certificate in Community and Ethnic Studies

15 SOCI 212[3]; ANTH/SOCI 230[3], 353[3], 451[6]
6 Chosen from ANTH 212[3]; SOCI 352[3], 358[3]; ANTH/SOCI 315[6]
6 Chosen from ANTH 303[3]; SOCI 330[6], 336[3], 437[3]; ANTH/SOCI 341[3], 381[3], 383[3]
3 Chosen from cognate courses outside the Department which reflect an appropriate cross-cultural perspective and/or subject matter. This course will be chosen in consultation with the Director of the Centre for Community and Ethnic Studies.

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

N.B.:

(1) 300-level courses are open to students who have successfully completed SOCI 203 or equivalent, plus at least six credits of 200-level Sociology courses.
(2) 400-level courses are open to students who have successfully completed SOCI 300 plus at least six credits from SOCI 310 or 315.
(3) Entry requirements for Sociology/Anthropology cross-listed courses depend on the discipline through which the course is entered. Once students have taken a cross-listed course under one disciplinary designation they may not take the course under the corresponding designation in the other discipline for credit.

SOCI 203 ***Introduction to Society*** (3 credits)

An introduction to the sociological study of society. The course begins with a consideration of the concepts, models, and methods used by sociologists. This is followed by an examination of selected substantive areas of social life, ranging from the relations between individuals and groups to total societies.

SOCI 212 ***Statistics I*** (3 credits)

Priority to enrol in this course is given to students who are in a Sociology or Anthropology programme. This course provides an introduction to the basic principles of statistics for social scientists. Topics include the concept of the level of measurement, standardization, the interpretation of graphs, measures of univariate distributions, cross classification, elementary measures of association, the logic of controls, and the basic principles of inferential statistics. The emphasis is on the implications of these statistical techniques for theoretical understanding of sociology and anthropology.

NOTE See §200.7

SOCI 213 ***Statistics II*** (3 credits)
Prerequisite: SOCI 212. Priority to enrol in this course is given to students who are in a Sociology or Anthropology programme. Students are encouraged to take SOCI 212 immediately preceding SOCI 213. This course is designed to follow Statistics I. Topics include measures of association, the principles of probability and sampling distributions, hypothesis testing, and tests of significance. The emphasis is on the implications of these statistical techniques for theoretical understanding in sociology and anthropology. *NOTE See §200.7*

SOCI 220 ***Social Organization*** (3 credits)
Examines the basic characteristics of societal organization through the use of comparative and evolutionary perspectives. Conceptual analysis of specific forms of and changes in the comprehensive pattern of social organization.

SOCI 230 ***Race and Ethnic Relations*** (3 credits)
Prerequisite: See N.B. number (3). Race and ethnicity are examined as bases of social differentiation. Ethnic group relations are analysed in relation to stratification and the exercise of power. The course further involves exploration of the phenomena of discrimination, prejudice, and intergroup accommodation.

SOCI 244 ***Sociology of Leisure*** (3 credits)
The course examines the effects of social, economic, and political institutions upon the structure and use of leisure time. The emphasis is upon historical changes and the implications of alienation, anomie, and inequality.
NOTE: Students who have received credit for SOCI 344 may not take this course for credit.

SOCI 261 ***Social Problems*** (3 credits)
Consideration of a range of social problems from a sociological perspective. Examination of the process by which "social problems" are socially defined and recognized.

SOCI 262 ***Social Deviance*** (3 credits)
Attention is focused on various forms of anti-social behaviour, particularly those that are socially induced. This course examines the nature, forms, sources, functions, and dysfunctions of deviations from social norms, and the mechanisms of social order and control. Deviance is viewed as a social process of interaction and relationships that derive from the social structure and have consequences for it. Various forms of deviance are considered in terms of contemporary social theory and research.

SOCI 263 ***Juvenile Crime and Delinquency*** (3 credits)
This course examines the nature of juvenile crime and delinquency and their social causes and consequences. Juvenile crime and delinquency, as special kinds of deviance, receive the focus of attention, with emphasis on criminal justice, juvenile justice, criminal behaviour systems, and social policy on juvenile crime and delinquency.

SOCI 264 ***Sociology of Sport*** (3 credits)
This course provides a systematic analysis of the social influences upon sport in North America. Special attention is directed to the interrelationships between sport and various social institutions.

SOCI 274 ***The Sociology of Aging*** (6 credits)
This course examines the changes in society and in living conditions as populations and people age. The sources and the effects of these changes are looked at in the light of several substantive areas and in terms of their implications for social policy. While the major emphasis is on the Canadian experience, some comparative materials are used to widen the perspective.

SOCI 275 ***Self and Society*** (6 credits)
This course studies the basic concepts and theories regarding social definitions of the Self. Emphasis is placed on ideas regarding personality, motivation, and interpersonal attitudes, viewed in terms of the interplay between actors and social structures.
NOTE: Students who have received credit for SOCI 370 may not take this course for credit.

SOCI 276 ***Gender and Society*** (6 credits)
Prerequisite: See N.B. number (3). This course explores the social construction of gender categories both historically and in the present. The focus is upon examining the various theoretical perspectives which attempt to explain the ways in which society has organized "masculine" and "feminine" as the basis for social inequalities.
NOTE: Students who have received credit for SOCI 372 may not take this course for credit.

SOCI 277 ***Sociology of Education*** (3 credits)
This course presents an analysis of the social structure of the formal education system. Trends in education are examined in relation to broader patterns of social change.
NOTE: Students who have received credit for SOCI 377 may not take this course for credit.

SOCI 280 ***Québec Society*** (6 credits)
Focus upon the historic changes in Québec society, with emphasis upon the period following the Second World War. Examination of issues which have provoked conflicting interpretations, including the Conquest, the nature of Confederation, Québec nationalism, and the language question.

SOCI 282 ***Canadian Society*** (6 credits)
Analysis of Canadian social structure and change; the relation of the whole of Canadian society to

its constituent elements; the relation of Canadian society to its international environment.

SOCI 298 ***Selected Topics in Sociology*** (3 credits)

SOCI 299 ***Selected Topics in Sociology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

SOCI 300 ***Classical Social Theory*** (6 credits)
Prerequisite: See N.B. number (1). This course involves an examination of the origins of sociology and of the sociological works of nineteenth- and early twentieth-century European theorists, with consideration of the social and political context. Particular emphasis is given to the works of Durkheim, Marx, and Weber. Readings include primary sources and critical commentaries.

SOCI 310 ***Research Methods*** (6 credits)
Prerequisite: See N.B. number (1). This course aims at introducing the students to the concepts, language, and techniques of quantitative and qualitative research methods. It familiarizes the students with the initiation of research problems, the gathering of accurate data, their statistical analysis, and the interpretation and reporting of research findings. This course also introduces the student to the computer use of SPSSX.

SOCI 315 ***Field Research*** (6 credits)
Prerequisite: See N.B. numbers (1) and (3). This course provides the opportunity to study and practise qualitative research methods as they are used by sociologists and anthropologists. Students are taught systematic procedures for the collection of primary data using methods that include participant-observation and formal and informal interviewing.
NOTE: Students who have received credit for SOCI 313 or 314 may not take this course for credit.

SOCI 323 ***Economy and Society*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the ways in which economic activities are legitimated or otherwise affected by social norms and values, and of the ways in which various social systems react to the strains created by the accommodation of new technology and of new industrial organizations.

SOCI 325 ***Social Change*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the sources, mechanisms, and consequences of social and cultural change. Classical and contemporary theories of change are analysed, as well as significant empirical studies.

SOCI 329 ***Theories and Structures of Formal Organizations*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the nature and characteristics of formal organizations, including their internal structures, relationships with each other and society.

SOCI 330 ***Social Class and Structured Inequality*** (6 credits)
Prerequisite: See N.B. number (1). This course examines the dynamics of social stratification and differentiation, including economic distinctions and their consequences, social status, power, and mobility. Emphasis is placed upon Canadian society.

SOCI 333 ***Political Sociology*** (3 credits)
Prerequisite: See N.B. number (1). This course is concerned with the nature, organization, distribution, determinants, and consequences of power in social systems.

SOCI 336 ***Collective Behaviour*** (3 credits)
Prerequisite: See N.B. number (1). This course is concerned with the nature, emergence, and dynamics of short-term collective behaviour. Classical and contemporary interpretations of collective behaviour are examined. The course focuses on events such as riots and the emergence of violence in demonstrations related to current social problems and issues in Canada and the United States.

SOCI 338 ***Sociology of Religion*** (3 credits)
Prerequisite: See N.B. number (1). This course presents an overview of the role of religion in society as found in the pertinent literature of sociology and anthropology. Special consideration is given to the relationship between religion and other social institutions, with particular attention to changes in the religious structures and practices in modern pluralistic societies.

SOCI 341 ***Migration and Labour Markets*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course investigates labour markets in both Canadian and international contexts with particular emphasis on the integration of migrants, ethnic groups, and visible minorities. An important focus of the course is on the way these groups have acted as agents of change in restructuring labour markets.

SOCI 342 ***Sociology of Occupations*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the role played by occupations and the world of work in industrialized societies. Economic, social, psychological, and moral attributes of occupations are examined in relation to changing markets for labour. Specific problem areas to be covered include changes in the structure of professions, the effects of

changing technology and organizational design on occupational requirements, issues in work and household demands, issues in employment equity and problems of unemployment.
NOTE: Students who have received credit for SOCI 343 may not take this course for credit.

SOCI 346 ***Industrialization*** (3 credits)
Prerequisite: See N.B. number (1). This course examines processes of industrialization. Analyses are directed primarily towards the Canadian experience and include a consideration of theories regarding industrialization in Canada; an examination of the social and economic impact of large-scale enterprises; the changing role of governments; the ongoing interaction between social organization and advanced technology; and contemporary thought on the social consequences of economic crises.

SOCI 347 ***Sociology of Labour-Management Relations*** (3 credits)
Prerequisite: See N.B. number (1). This course involves the study of the shifting patterns in labour-management relations with a special focus on Canada. The course includes analyses of theories of management; the impact of the labour union movement, changes in the nature of the labour market; the significance of the growth of the service sector; the changing role of governments in labour-related issues; and contemporary thought on new forms of industrial organization.

SOCI 350 ***Urban Regions*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course involves a historical analysis of the development of urbanization, focusing on pre-industrial cities, and a review of major theoretical perspectives on urbanism and urban research in modern times. The course takes a comparative view of the process of urbanization in the First and the Third World, and examines the impact of urbanism on kinship and class structures, economic and political organizations, and other major social institutions.

SOCI 351 ***Urban Regions II*** (3 credits)
Prerequisite: See N.B. number (1); SOCI/ANTH 350. This course analyses the growth of urbanization in North America, concentrating on the social and spatial organization of Canadian cities, especially Montréal.

SOCI 352 ***Ethnicity and Population*** (3 credits)
Prerequisite: See N.B. number (1). The course provides an introduction to the basic principles, issues, data, and methods of population studies through a critical exploration of the relationship between ethnicity and population. The emphasis is on how demographic processes (fertility, mortality, and migration) are affected by ethnic factors and on how differential dynamics contribute to shape the ethnic composition and stratification of populations.

SOCI 353 ***Community Studies*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3); or permission of the Undergraduate adviser. This course involves the study of communities both as locales and as symbolic constructions. The major theoretical approaches used in community studies are evaluated in relation to research and applied interests. Special attention is given to sensitizing students to issues concerning gender, race, ethnicity, and class at the community level.

SOCI 354 ***Community Studies II*** (3 credits)
Prerequisite: See N.B. number (1); SOCI/ANTH 353 and/or permission of the Undergraduate adviser. This course explores the application of a variety of theoretical and methodological approaches and evaluative procedures to community interventions. Materials for the course consist of videotaped interviews and films.

SOCI 358 ***Social Demography*** (3 credits)
Prerequisite: See N.B. number (1). This course provides an introduction to the basic principles, issues, data, and methods of population studies. The emphasis in the course is on social factors that affect demographic processes (fertility, nuptiality, mortality, and migration), and the ways in which demographic change is related to social structure and social change.

SOCI 361 ***Criminology*** (3 credits)
Prerequisite: See N.B. number (1). The course analyses the emergence of criminology as a discipline, and reviews a range of contemporary theoretical perspectives on crime, criminal behaviour, and crime control.

SOCI 362 ***Crime and Justice*** (3 credits)
Prerequisite: See N.B. number (1). This course provides a critical analysis of the Canadian criminal justice system. The focus is on the process by which the accused is judged guilty or innocent, sentenced, punished or "corrected", and the treatment of the victim.

SOCI 363 ***Law and Society*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course situates the study of law in cross-cultural perspective. It involves an examination of the kinds of institutions found in place of courts in non-Western societies. This course also explores numerous issues of relevance to the legitimacy of contemporary Western legal systems, such as the relationship between law and morality, the idea of right prior to good, and the nature of legal reasoning.

SOCI 368 ***The History and Sociology of Genocide*** (6 credits)
Prerequisite: See N.B. numbers (1) and (3). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that have led to it.

SOCI 375 ***Social Construction of Sexuality*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course provides a cross-cultural, interdisciplinary approach to the study of human sexuality. There are three major components. One explores the validity of contemporary sexual beliefs and attitudes. Another focuses on the extent to which sexual beliefs and behaviours are socially organized. A third provides an introduction to theories which examine how biological and/or social forces shape our sexual lives.
NOTE: Students who have received credit for this topic under a SOCI 398 number may not take this course for credit.

SOCI 376 ***Socialization*** (6 credits)
Prerequisite: See N.B. number (1). This course examines the social and cultural processes by which the individual becomes a functioning member of society. Attention is given to adult socialization and re-socialization in diverse institutional contexts such as schools, occupations, hospitals, prisons, the military. The relationship of social structure to role acquisition and role performance is a major focus of the course.
NOTE: Students who have received credit for SOCI 270 may not take this course for credit.

SOCI 378 ***The Family*** (6 credits)
Prerequisite: See N.B. number (1). The family as an institution is examined in relation to social structure and historical change. Special emphasis is placed on trends in the nuclear family patterns of contemporary North American society, and on the relation of the family to the broader societal environment.
NOTE: Students who have received credit for SOCI 272 may not take this course for credit.

SOCI 379 ***Cross-Cultural Perspectives on Gender*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course explores through different theoretical perspectives and ethnographic examples, cross-cultural differences in sex/gender systems. A comparative analysis of gender relations in band, tribal, and state societies is undertaken. Topics discussed include the sexual division of labour, the cultural and social construction of gender, and the impact of economic development.

SOCI 381 ***Ethnic Communities in Canada*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course aims at familiarizing students with the social factors and dynamics of contemporary ethno-cultural communities in Canada. Topics may include the immigration process and settlement; community development, structures, and organizations; the ethnic family; socio-economic status and achievement; cultural continuity and change; minority-majority relations and relations with other ethno-cultural communities.

SOCI 383 ***Identity and Community in Europe*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). The course examines the role of history and religion, culture, and ethnicity in the construction of identity and community in twentieth-century Europe. Readings include different theoretical approaches to topics such as rural development, labour migration, and ethno-nationalism as well as ethnographies of communities in one or more regions of Europe.

SOCI 398 ***Selected Topics in Sociology*** (3 credits)

SOCI 399 ***Selected Topics in Sociology*** (6 credits)

Prerequisite: See N.B. number (1). Specific topics for these courses will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

SOCI 401 ***The History of Social Thought*** (6 credits)
Prerequisite: See N.B. number (2). This course presents an overview of the various ideas and schools of thought which attempt to explain the organization, development, and change of various aspects of human societies. The emphasis is on the philosophical underpinnings of the discipline of sociology. The timespan ranges from ancient Greek social thought to early nineteenth-century European thought in which sociology was founded.

SOCI 404 ***Sociology of Literature*** (3 credits)
Prerequisite: See N.B. number (2); or permission of the Undergraduate adviser. This course presents a critical study of literature and paraliterature as a cultural and social practice. Various approaches to the sociology of literature are examined. The emphasis is on the social genesis of literature. Selected texts of Canadian fiction and drama are analysed.

SOCI 406 ***Sociology of Knowledge*** (3 credits)
Prerequisite: See N.B. number (2). This course examines a variety of theories of the relation of knowledge and belief to social contexts.

SOCI 408 ***Contemporary Sociological Theory*** (6 credits)
Prerequisite: See N.B. number (2). This course examines major developments in social theory against the background supplied by the classic projects of Marx, Durkheim, Simmel, and Weber. Particular emphasis is placed on contested substantive, methodological, and practical conceptions of social structure, culture, and human agency in contemporary schools of sociology such as functionalism, neo-marxism, structuralism, critical theory, hermeneutical theory, social constructionism, rational

exchange theories, and post-modernist thought.
NOTE: Students who have received credit for SOCI 402 or 403 may not take this course for credit.

SOCI 409 ***Honours Seminar*** (6 credits)
Prerequisite: See N.B. number (2); SOCI 410; and permission of the Honours adviser. This course involves the student formulating an Honours research proposal, and the research and writing of an Honours paper.

SOCI 410 ***Research Design and Analysis*** (6 credits)
Prerequisite: See N.B. number (2). This course looks at quantitative methods of data collection and analysis. Topics include experimental and quasi-experimental design, principles of measurement, survey design, secondary data sources, techniques of multivariate analysis, and interpretation.

SOCI 432 ***Theories of Ethnicity*** (6 credits)
Prerequisite: See N.B. numbers (2) and (3). The course focuses on some of the ways in which anthropology and sociology have conceptualized and problematised notions of culture, cultural boundary, cultural mixing, ethnicity, race, and multi-racialism. This course takes a broad comparative approach and is concerned with exploring what these concepts mean in a variety of contexts.

SOCI 437 ***Social Movements*** (3 credits)
Prerequisite: See N.B. number (2). The nature, emergence, and dynamics of organized collective behaviour and social movements are examined in light of classical and contemporary theories. The course focuses on the impact of leadership, organizational resources, and discontent with institutionalized social relations on social movements. Contemporary social movements in Québec, the rest of Canada, and the U.S. serve as illustrations.
NOTE: Students who have received credit for SOCI 337 may not take this course for credit.

SOCI 445 ***Sociology of Labour Movements*** (3 credits)
Prerequisite: See N.B. number (2). This course analyses the origins and development of labour movements as well as contemporary characteristics of union organizations within the context of their social, political, and economic environments. Emphasis upon Canada and Québec.
NOTE: Students who have received credit for SOCI 345 may not take this course for credit.

SOCI 450 ***Seminar in Urban and Metropolitan Studies*** (6 credits)
Prerequisite: See N.B. number (2). This course presents an intensive study of selected theories and monographs dealing with aspects of urbanization.

SOCI 451 ***Seminar and Practicum in Community and Ethnic Studies*** (6 credits)
Prerequisite: See N.B. numbers (2) and (3). This seminar centres around student projects which involve research relating to community or ethnic issues. Such research may be of a theoretical or applied nature. In the seminar, students are helped to choose, design, conduct, and present their research. Research topics may be related to agencies, organizations, or practical issues in which the students are already involved.

SOCI 457 ***Population and Society*** (3 credits)
Prerequisite: See N.B. number (2). This course involves a critical examination of the relationship between population and society. This course treats both theoretical and applied aspects of this relationship, with particular emphasis on the problem of population and resources and the examination of social and demographic policies in the developed and the developing world.
NOTE: Students who have received credit for SOCI 357 may not take this course for credit.

SOCI 472 ***Youth Culture*** (3 credits)
Prerequisite: See N.B. numbers (2) and (3). This course is concerned with the cultural agency of youth, with particular emphasis on the study of peer groups. The production of culture by youth is examined through a wide range of anthropological and sociological studies.

SOCI 474 ***Symbols, Rituals, and the Body*** (3 credits)
Prerequisite: See N.B. number (2). This course examines the social roles of the body. Topics include body image and self-esteem, the symbolism of beauty and ugliness, height, hair, dress, the face, body language, health and fitness, eating and drinking patterns. The subject is considered in anthropological and sociological perspectives.
NOTE: Students who have received credit for SOCI 374 may not take this course for credit.

SOCI 480 ***Victorian Sociology*** (3 credits)
Prerequisite: See N.B. number (2). This course provides the opportunity to study the lives and writings of women and men of the nineteenth century who contributed to the understanding of society and to the emergence of British and American sociology. The research and writings studied include those of Martineau, Tocqueville, Mill, Marx, Engels, Tristan, Maine, Spencer, Harrison, Mayhew, Booth, Gilman, Besant, Veblen, and Webb.

SOCI 498 ***Advanced Topics in Sociology*** (3 credits)

SOCI 499 ***Advanced Topics in Sociology*** (6 credits)

Prerequisite: See N.B. number (2). Specific topics for these courses will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

Programmes

ANTHROPOLOGY

60 BA Honours in Anthropology
3 ANTH 202[3]*
3 SOCI 212[3]
6 200-level ANTH credits
3 200-level SOCI credits
3 Chosen from ANTH 212[3]; SOCI 213[3]
6 ANTH 310[6]
6 ANTH 315[6]
6 300-level ANTH credits
6 ANTH 495[6]
18 400-level ANTH credits

60 BA Specialization in Anthropology
3 ANTH 202[3]*
3 SOCI 212[3]
6 200-level ANTH credits
3 200-level SOCI credits
3 Chosen from ANTH 212[3]; SOCI 213[3]
6 ANTH 310[6]
6 ANTH 315[6]
9 300-level ANTH credits
21 400-level ANTH credits

60 BA Joint Specialization in Anthropology and Sociology
3 ANTH 202[3]*
3 SOCI 203[3]**
6 SOCI 212[3], 213[3]
6 ANTH 310[6]
6 SOCI 300[6]
6 Chosen from SOCI 310[6], 315[6], 410[6]
12 Chosen from ANTH/SOCI 341[3], 350[3], 353[3], 355[3], 363[3], 375[3], 379[3], 381[3], 383[3], 430[3], 451[6], 472[3]
6 400-level ANTH credits
6 400-level SOCI credits
6 ANTH or SOCI credits

42 BA Major in Anthropology
3 ANTH 202[3]*
3 200-level ANTH credits
3 200-level ANTH or SOCI credits
3 200-level SOCI credits
6 ANTH 310[6]
9 300-level ANTH credits
15 400-level ANTH credits

30 Minor in Anthropology
3 ANTH 202[3]*
3 200-level ANTH credits
3 200-level ANTH or SOCI credits
6 ANTH 310[6]
12 300-level ANTH credits
3 400-level ANTH credits

**Students exempted from ANTH 202[3] are required to take three credits from ANTH 200- and 300-level courses.*
***Students exempted from SOCI 203[3] are required to take three credits from SOCI 200- or 300-level courses.*

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

N.B.:
(1) 300-level courses are open to students who have successfully completed ANTH 202 or equivalent, plus at least three credits of 200-level Anthropology courses.
(2) 400-level courses are open to students who have successfully completed ANTH 310 plus at least six credits of 300-level Anthropology courses.
(3) Entry requirements for Sociology/Anthropology cross-listed courses depend on the discipline through which the course is entered. Once students have taken a cross-listed course under one disciplinary designation they may not take the course under the corresponding designation in the other discipline for credit.

ANTH 202 ***Introduction to Culture*** (3 credits)
An introduction to the anthropological study of culture. The course begins with a consideration of the concepts, models, and methods used by anthropologists. This is followed by an examination of the many ways in which peoples of the world, past and present, have organized the activities, institutions, and belief systems that sustain social life. The course concludes with a discussion of the relevance of cultural anthropology to contemporary issues.

ANTH 203 ***Culture and Biology: An Anthropological Perspective*** (3 credits)
This course focuses on the interrelationship between culture and human biology. The first part of the course examines current debates about human origins, human variation, and the influence of cultural adaptation on human biology. This is followed by a critical examination of the strategies of sociobiology for the study of socio-cultural phenomena.

ANTH 204 ***Native Peoples of North America*** (3 credits)
Focusing primarily on the Native peoples of Canada, this course examines the ecological, economic, social, and religious aspects of Native cultures. A representative society from each geographic area of Canada is studied. This course is primarily ethnographic in emphasis, but it also seeks to provide some of

the social and historical background necessary to understand the current situation of Native communities.

ANTH 205 ***Culture and Religion*** (3 credits)
This course presents an introduction to the study of religion in cross-cultural perspective. The focus is upon indigenous, non-Western expressions of religion, from shamanism to Shintoism, and on religions that have emerged out of contact between Western and non-Western cultures, such as Haitian voodoo and Malanesian cargo cults.

ANTH 212 ***Elements of Ethno-Linguistics*** (3 credits)
This is an introductory course which explores the relationship between language and culture, and the use of language in society. Major issues and debates in ethno-linguistics, socio-linguistics, and philosophy of language are examined.

ANTH 230 ***Race and Ethnic Relations*** (3 credits)
Prerequisite: See N.B. number (3). Race and ethnicity are examined as bases of social differentiation. Ethnic group relations are analysed in relation to stratification and the exercise of power. The course includes explorations of the phenomena of discrimination, prejudice, and intergroup accommodation.

ANTH 270 ***Anthropology and Contemporary Issues*** (3 credits)
This course examines contemporary world issues from a cross-cultural perspective. Discussion ranges from a critical examination of anthropological concepts and methods to a consideration of some of the practical or applied uses of anthropology. Specific topics include the consequences of underdevelopment, modernization, and the place of folk cultures and tradition in an increasingly global society.
NOTE: Students who have received credit for ANTH 370 may not take this course for credit.

ANTH 272 ***Comparative Culture*** (3 credits)
This course is a general introduction to social and cultural anthropology. It examines the ways in which anthropologists use the comparative method to understand cultures in their unity and diversity. The focus is upon reading ethnographies.

ANTH 276 ***Gender and Society*** (6 credits)
Prerequisite: See N.B. number (3). This course explores the social construction of gender categories both historically and in the present. The focus is upon examining the various theoretical perspectives which attempt to explain the ways in which society has organized "masculine" and "feminine" as the basis for social inequalities.
NOTE: Students who have received credit for SOCI 372 may not take this course for credit.

ANTH 298 ***Selected Topics in Anthropology*** (3 credits)

ANTH 299 ***Selected Topics in Anthropology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

ANTH 302 ***Art, Aesthetics, and Anthropology*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the relationship between art and society. It is mainly concerned with analysing how art may function as a means of signifying and perpetuating a given social order. Examples of artistic practice are drawn from diverse North and South American, African, and Melanesian cultures.

ANTH 303 ***Aboriginal Indian and Inuit Socio-Political Organizations*** (3 credits)
Prerequisite: See N.B. number (1). This course examines the various forms of socio-political organization worked out by the Indian and Inuit peoples of North America prior to contact and colonization. This knowledge is then applied to understanding current conflicts between First Nations and the Canadian and American governments.

ANTH 305 ***Culture and History*** (3 credits)
Prerequisite: See N.B. number (1). This course analyses some of the ways "history" has been understood both in our own and other cultures, including history as legitimating charter, as repeating cycle, as a scientific inquiry, as a series of unique events, and as a basis for ethical judgements.

ANTH 307 ***Understanding Myths*** (3 credits)
Prerequisite: See N.B. number (1). This course presents a survey of current anthropological theories of the nature and function of myths. The course also analyses competing interpretations of some classic Western myths, and concludes with an examination of mythmaking in contemporary Western culture.

ANTH 310 ***The Making and Unmaking of Anthropological Theories*** (6 credits)
Prerequisite: See N.B. number (1). This course provides the student with a broad critical perspective on various theoretical approaches to anthropology (evolutionism, functionalism, structuralism, cultural materialism, and Marxism). Anthropology is always engaged in balancing between fieldwork and theories. This course shows how fieldwork has shaped and continues to shape the making and the unmaking of theories.
NOTE: Priority enrolment in this course is given

to students who are in Anthropology and Sociology programmes.

ANTH 315 ***Field Research*** (6 credits)
Prerequisite: See N.B. numbers (1) and (3). This course provides the opportunity to study and practise qualitative research methods as they are used by sociologists and anthropologists. Students learn systematic procedures for the collection of primary data using methods that include participant-observation and formal and informal interviewing.
NOTE: Students who have received credit for SOCI 313 or 314 may not take this course for credit.

ANTH 323 ***Peoples and Cultures of the Middle East*** (3 credits)
Prerequisite: See N.B. number (1). This course explores the diversity of religious practices, social values, economic organization, and family and gender relations in several different Middle Eastern societies by examining ethnographic material on transformations and continuities in the lives of urban and rural people.

ANTH 324 ***Peoples and Cultures of Oceania*** (3 credits)
Prerequisite: See N.B. number (1). This course presents an overview of the peoples and cultures of Oceania, with particular emphasis on Melanesia. In addition to studying the peopling of the Pacific, the course delves into a range of classic anthropological topics, and addresses contemporary issues of gender, migration, and urbanization.
NOTE: Students who have received credit for this topic under an ANTH 398 number may not take this course for credit.

ANTH 325 ***Magic, Science, Religion, and Ideology*** (3 credits)
Prerequisite: See N.B. number (1). This course analyses belief systems and their attendant rituals and practices. The focus is on how anthropologists differentiate between magic, science, religion, and ideology, and how anthropologists understand the relationship between belief systems and reality.

ANTH 326 ***Peoples and Cultures of Sub-Saharan Africa*** (3 credits)
Prerequisite: See N.B. number (1). The course gives a broad historical and geographical survey of the region, and discusses, through case studies, older and contemporary topics, debates, and issues of African anthropology.

ANTH 332 ***Health, Illness and Healing in Cross-Cultural Perspective*** (3 credits)
Prerequisite: See N.B. number (1). This course involves the exploration of a series of alternatives to Western ways of defining health and treating sickness, with particular emphasis on shamanistic and East Asian medicine. The major part of the course is devoted to the study of ethnomedicine, and exploring some of the central questions of transcultural psychiatry. The course concludes with a discussion of the role of the anthropologist in international health-planning.
NOTE: Students who have received credit for this topic under an ANTH 398 number may not take this course for credit.

ANTH 341 ***Migration and Labour Markets*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course investigates labour markets in both Canadian and international contexts with particular emphasis on the integration of migrants, ethnic groups, and visible minorities. An important focus of the course is on the way these groups have acted as agents of change in restructuring labour markets.

ANTH 350 ***Urban Regions*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course involves a historical analysis of the development of urbanization, focusing on pre-industrial cities, and a review of major theoretical perspectives on urbanism and urban research in modern times. The course takes a comparative view of the process of urbanization in the First and the Third World, and examines the impact of urbanism on kinship and class structures, economic and political organizations, and other major social institutions.

ANTH 353 ***Community Studies*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course involves the study of communities as locales and as symbolic constructions. The major theoretical approaches used in community studies are evaluated in relation to research and applied interests. Special attention is given to sensitizing students to issues concerning gender, race, ethnicity, and class at the local level.

ANTH 355 ***Urban Anthropology*** (3 credits)
Prerequisite: See N.B. number (1). This course reviews the work of anthropologists in cities. The focus is on the social organization of social life in First and Third World urban spaces. Consideration is also given to the particular dynamics of fieldwork in urban settings.

ANTH 363 ***Law and Society*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course situates the study of law in cross-cultural perspective. It involves an examination of the kinds of institutions found in place of courts in non-Western societies. The course also explores numerous issues of relevance to the legitimacy of contemporary Western legal systems, such as the relationship between law and morality, the idea of right prior to good, and the nature of legal reasoning.

ANTH 371 ***Peasant Societies and Cultures*** (3 credits)
Prerequisite: See N.B. number (1). This course

examines agrarian societies in different cultural and political contexts. The course begins with a brief discussion of the archaeological evidence for early and later Neolithic agriculturalists. This is followed by an examination of peasantries, their persistence and transformation. The course concludes with a discussion of the role that subsistence producers play in contemporary societies.

ANTH 375 ***Social Construction of Sexuality*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course provides a cross-cultural, interdisciplinary approach to the study of human sexuality. There are three major components. One explores the validity of contemporary sexual beliefs and attitudes. Another focuses on the extent to which sexual beliefs and behaviours are socially organized. A third provides an introduction to theories which examine how biological and/or social forces shape our sexual lives.

ANTH 379 ***Cross-Cultural Perspectives on Gender*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). Thecourse explores through different theoretical perspectives and ethnographic examples, cross-cultural differences in sex/gender systems. A comparative analysis of gender relations in band, tribal, and state societies is undertaken. Topics discussed include the sexual division of labour, the cultural and social construction of gender, and the impact of economic development.

ANTH 381 ***Ethnic Communities in Canada*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). This course aims at familiarizing students with the social factors and dynamics of contemporary ethno-cultural communities in Canada. Topics may include the immigration process and settlement; community development, structures, and organizations; the ethnic family; socio-economic status and achievement; cultural continuity and change; minority-majority relations and relations with other ethno-cultural communities.

ANTH 383 ***Identity and Community in Europe*** (3 credits)
Prerequisite: See N.B. numbers (1) and (3). The course examines the role of history and religion, culture, and ethnicity in the construction of identity and community in twentieth-century Europe. Readings include different theoretical approaches to topics such as rural development, labour migration, and ethno-nationalism as well as ethnographies of communities in one or more regions of Europe.

ANTH 398 ***Selected Topics in Anthropology*** (3 credits)

ANTH 399 ***Selected Topics in Anthropology*** (6 credits)

Prerequisite: See N.B. number (1). Specific topics for these courses will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

ANTH 410 ***Theories of Culture*** (6 credits)
Prerequisite: See N.B. number (2). This course presents a critical survey of the principal theoretical currents in the discipline, focusing on the concept of culture. The theoretical paradigms to be examined include Marxist, feminist, psychoanalytic, hermeneutic or "symbolic", structuralist, and post-structuralist as well as post-colonial perspectives on culture.

ANTH 411 ***Critical Anthropology*** (3 credits)
Prerequisite: See N.B. number (2). This course examines the so-called crises into which anthropology has been plunged as a consequence of de colonization and other social movements, as well as the strategies of critique which anthropologists have developed in response.

ANTH 420 ***Psychological Anthropology*** (3 credits)
Prerequisite: See N.B. number (2). This course examines and critiques the theoretical concepts of Western academic and folk psychology from the perspective of the psychologies of other cultures. Topics considered include the cultural construction of the emotions, personality development, perception, culture-bound psychiatric syndromes (such as windigo psychosis, amok), and altered states of consciousness, and indigenous theories of dream interpretation.

ANTH 421 ***Symbolic Anthropology*** (3 credits)
Prerequisite: See N.B. number (2). This course examines alternative theoretical approaches to the study of the role of symbols in society. The course is devoted to a consideration of the contributions of structural, psychoanalytic, and interpretive anthropology.
NOTE: Students who have received credit for ANTH 426 may not take this course for credit.

ANTH 422 ***Post-Modern Anthropology*** (3 credits)
Prerequisite: See N.B. number (2). A further examination of alternative theoretical approaches to the understanding of the symbolic. The course focuses on the contributions of literary theory, the philosophy of pragmatism, and post-structuralist and anti-psychoanalytic thought, to current debate in anthropology.
NOTE: Students who have received credit for ANTH 426 may not take this course for credit.

ANTH 423 ***Political Anthropology*** (3 credits)
Prerequisite: See N.B. number (2). This course examines the political process and political organization in cross-cultural perspective. The focus is on how order is achieved in the absence of the state, as well as questions of

leadership, power, and authority in different social contexts.
NOTE: Students who have received credit for ANTH 459 may not take this course for credit.

ANTH 424 ***Political Anthropology II*** (3 credits)
Prerequisite: See N.B. number (2). This course examines the uses of conflict in the maintenance of diverse social and political orders. The course is also concerned with analysing the processes through which social change takes place.
NOTE: Students who have received credit for ANTH 459 may not take this course for credit.

ANTH 430 ***Anthropology of Development*** (3 credits)
Prerequisite: See N.B. number (2). This course considers the systematic reduction of poverty and powerlessness at individual and societal levels. Several development problems are examined, including national debt crisis, population growth, urbanization, and various degrees of state withdrawal from regulating the market. Special emphasis is given to case studies from major regions of the Third World on the varied impact of development on gender relations and on the eradication of social and economic inequalities.

ANTH 431 ***Economy in Non-Industrial Cultures*** (3 credits)
Prerequisite: See N.B. number (2). This course analyses the relationships between economy and cultural systems. The first section is devoted to the concept of economic base and superstructure; the second section focuses on selected case studies of non-industrial cultures. The course concludes with an appraisal of the quality of economic life in non-industrial cultures.
NOTE: Students who have received credit for ANTH 401 or 402 may not take this course for credit.

ANTH 432 ***Theories of Ethnicity*** (6 credits)
Prerequisite: See N.B. numbers (2) and (3). The course considers some of the ways in which anthropology and sociology have conceptualized and problematised notions of ethnicity, race, multi-racialism, culture, cultural boundary, and cultural mixing. The course takes a broad comparative approach.

ANTH 440 ***Culture, Language, and Mind*** (3 credits)
Prerequisite: See N.B. number (2); ANTH 212. This course looks at the relationship between linguistics and anthropology, and examines some of the issues in the linkage between language, culture, and thought.
NOTE: Students who have received credit for ANTH 306 may not take this course for credit.

ANTH 451 ***Seminar and Practicum in Community and Ethnic Studies*** (6 credits)
Prerequisite: See N.B. number (2). This seminar centres around student projects which involve research relating to community or ethnic issues. Such research may be of a theoretical or applied nature. In the seminar, students are helped to choose, design, conduct, and present their research. Research topics may be related to agencies, organizations, or practical issues in which the students are already involved.

ANTH 461 ***Kinship and Social Anthropology*** (3 credits)
Prerequisite: See N.B. number (2). This course deals with residence, descent, generation, and elderliness, with special consideration given to the functionalist and Marxist approaches to the study of lineage societies.
NOTE: Students who have received credit for ANTH 460 may not take this course for credit.

ANTH 462 ***Kinship and Social Anthropology II*** (3 credits)
Prerequisite: See N.B. number (2). This course covers the topics of incest, sex and marriage, the structuralist alliance theory, terminologies and attitudes, the new technologies of procreation and their impact on kinship.
NOTE: Students who have received credit for ANTH 460 may not take this course for credit.

ANTH 465 ***Legal Anthropology*** (3 credits)
Prerequisite: See N.B. number (2). This course analyses the legal system as an institutionalized system of social control and meanings, using historical and comparative data. Special attention is given to the study of the interface of law and other areas of sociological inquiry, including social change, conflict, and decision-making.

ANTH 471 ***Anthropology of Food*** (3 credits)
Prerequisite: See N.B. number (2). This course approaches food through four main themes: archaeology of food production (domestication of plants and animals); class, cuisine, and the development of taste; cosmic and other symbolism of food; and the political economy of food and hunger.
NOTE: Students who have received credit for ANTH 340 may not take this course for credit.

ANTH 472 ***Youth Culture*** (3 credits)
Prerequisite: See N.B. numbers (2) and (3). This course is concerned with the cultural agency of youth, with particular emphasis on the study of peer groups. The production of culture by youth is examined through a wide range of anthropological and sociological studies.

ANTH 495 ***Honours Essay*** (6 credits)
Prerequisite: See N.B. number (2); ANTH 310; and permission of the Honours adviser. Under

the supervision of an Anthropology staff member, the student prepares an Honours essay on a subject chosen in consultation with and approved by the professor.

ANTH 498 ***Advanced Topics in Anthropology*** (3 credits)

ANTH 499 ***Advanced Topics in Anthropology*** (6 credits)

Prerequisite: See N.B. number (2). Specific topics for these courses will be stated in the Undergraduate Class Schedule and the Departmental Handbook.

31.320 TEACHING OF ENGLISH AS A SECOND LANGUAGE

Faculty

Director
RONALD MACKAY, *Professor*

Professors
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PATSY M. LIGHTBOWN
JOHN A. UPSHUR

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PALMER ACHESON
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JOANNA L. WHITE
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NANCY L. BROWN
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ROGER KENNER
GILLES RIVARD

Location

Sir George Williams Campus
Annex EN, Room: 209
(514) 848-2450

Objectives

The work of the TESL Centre is to prepare teachers and other professionals to develop, staff, manage, and evaluate English as a Second Language (ESL) programmes.
Through the Centre, students earn either an undergraduate degree or a Certificate in the teaching of ESL, with special attention to the needs of the Québec education system. A graduate programme in Applied Linguistics is offered for experienced language educators.
The Centre also provides a university-wide testing service for incoming students whose first language is not English, as well as comprehensive instruction for those seeking to improve their mastery of English for academic purposes.

***BEd (Teaching English as a Second Language)**
The Centre for the Teaching of English as a Second Language offers the BEd Degree (Teaching English as a Second Language).

Admission Requirements (BEd)

General admission requirements are listed in §13 (Admission Regulations). Specific requirements are as follows:

1. Satisfactory completion of a two-year pre-university programme in a CEGEP or equivalent. Within the programme, the students will be required to have successfully completed the equivalent of four semester courses in English.
2. Owing to the specialized nature of this programme, no more than 30 pro-tanto credits will normally be permitted, and the University reserves the right to determine which ones these should be.
3. Candidates must demonstrate competence in English. All non-native speakers of English must take a formal test of English proficiency and obtain a score acceptable to the TESL Centre. *NOTE I: Arrangements for taking the proficiency test may be made through the Office of the Registrar.*
4. The BEd(TESL) is open to both prospective and experienced teachers. The BEd(TESL) is offered in the day and evening, and in the Summer Session. The internship package of courses (TESL 324[3], 385[3], 411[3], 424[3], and 485[6]) is offered *only* as daytime, Fall/Winter courses. Some of the courses may also be offered outside Montréal through the Office for Off-Campus Education.

Programme

78 BEd Specialization in Teaching English as a Second Language
33 TESL 221[3], 231[3], 232[3], 324[3], 341[3], 385[3], 413[3], 415[3], 424[3], 485[6]
15 Chosen from remaining TESL courses, and approved* linguistics-related courses in LING, MODL, FRAN, EDUC, etc.
NOTE: At least nine credits must be in TESL

6 EDUC 210[5]
12 Chosen from courses in EDUC, PSYC, ADED.
NOTE: Students who intend to apply for teacher certification in Québec must include EDUC 445[3] and 414[3] or PSYC 281[3].

6 ENGL 212[3] and 213[3] or 396[6]
6 English literature, to be approved by TESL Centre
**NOTE: Written approval of the TESL programme adviser is required.*

CERTIFICATE IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE: SEQUENCE I

This 30-credit programme is offered to experienced teachers who are not native speakers of English.

Admission Requirements

1. Candidates must have an appropriate teacher's certificate or the equivalent of one year's experience as a full-time second-language teacher (400 hours).
2. Candidates must take a formal test of English proficiency and obtain a score acceptable to the TESL Centre.

NOTE: Arrangements for taking the proficiency test may be made through the Office of the Registrar.

Concordia students may transfer into the Certificate programme all applicable Concordia credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. Students from other institutions may transfer up to *12* applicable credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.
The TESL Certificate: Sequence I programme is offered in the evening and in the Summer Session, and may be offered outside Montréal through the Office for Off-Campus Education.
NOTE II: Individuals who have completed TESL Certificate: Sequence II are not eligible for admission to TESL Certificate: Sequence I.

Programme

30 Certificate in the Teaching of English as a Second Language: Sequence I
Courses
TESL 201[3], 203[6], 205[3], 324[3], 341[3], 413[3], 415[3], 424[3], 433[3]

CERTIFICATE IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE: SEQUENCE II

This 30-credit programme is offered to experienced teachers whose native language is English or whose proficiency in English meets native-user standards.

Admission Requirements

1. Candidates must have an appropriate teacher's certificate or the equivalent of one year's experience as a full-time second-language teacher (400 hours).
2. Candidates must demonstrate competence in English. All non-native speakers of English must take a formal test of English proficiency and obtain a score acceptable to the TESL Centre. *NOTE: Arrangements for taking the proficiency test may be made through the Office of the Registrar.*

Concordia students may transfer into the Certificate programme all applicable Concordia credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. Students from other institutions may transfer up to *12* applicable credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.
The Certificate: Sequence II programme is offered in the day and evening, and in the Summer Session. Some of the courses may also be offered outside Montréal through the Office for Off-Campus Education.
NOTE III: Individuals who have completed TESL Certificate I are not eligible for admission to TESL Certificate II.

Programme

30 Certificate in the Teaching of English as a Second Language: Sequence II
6 ENGL 212[3] and 213[3] or 396[6]
24 TESL 221[3], 231[3], 232[3], 324[3], 341[3], 415[3], 424[3], 433[3]

INFORMATION RELEVANT TO ALL PROGRAMMES

NOTE IV: Upon successful completion of the BEd (TESL) programme and after application to the Office of the Registrar, a graduate may be recommended to the Québec Teachers Certification Service for a "Permis d'enseigner (probation): autorisation personnelle temporaire". This temporary teaching permit will be issued by the Québec Ministère de l'éducation to teach ESL at the Primary and Secondary levels in French-speaking schools. The graduate then has five years to complete the two-year full-time probationary teaching period. When this has been done, the graduate will be eligible for a "Brevet d'enseignement: autorisation personnelle permanente" (a teaching diploma). Upon successful completion of the TESL Certificate Sequence I or TESL Certificate Sequence II, a graduate previously certified to teach in Québec will be recommended for an additional "Brevet d'enseignement: autorisation personnelle permanente". This teaching diploma will be issued to teach ESL at the Primary and Secondary levels in French-speaking schools. A graduate who has been granted a temporary teaching permit to teach a subject other than ESL may be recommended for an additional permit to teach ESL.

There is no comparable certification process for teaching ESL at CEGEP level — Collège d'enseignement général et professionnel (junior college) or other adult level.

To be recommended for certification (permit or diploma), students must achieve at least a "C" grade in methodology and teaching practice courses: that is,

1. for the BEd, in TESL 324, 424, 385, and 485;
2. for the Certificate Sequence I or II options, in TESL 324, 424, and 433.

Students who obtain a passing grade that is below the level required for recommendation for certification will be placed on conditional standing within the programme and will be so informed in writing by the director of the TESL Centre. Students will be allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see Calendar §16.3.12.)

Students who fail to repeat the course successfully within one year will, to remain in the programme, be required to acknowledge in writing that they have forfeited the right to be recommended for certification.

Students who obtain a failing grade (F, R, or NR) in any of the courses listed in paragraphs (1) and (2) above will be required to withdraw from the programme and will also be so informed in writing by the director of the TESL Centre.

To be recommended for certification in Québec, students must demonstrate reasonable fluency in French.

In the event that a student meets regular university standards but does not satisfy the requirements for recommendation for certification, the student may apply to receive the university degree or Certificate but will not be recommended to the Ministry.

NOTE V: Upon admission, students may be granted exemptions from courses in TESL programmes if they have completed equivalent work at the university level.

Replacement for these exemptions must be made in accordance with the guidelines established by the TESL Centre and approved by the University. Copies of these guidelines may be obtained in the TESL Centre.

Courses in English as a Second Language are designed for students who are not native speakers of English and who need further training in the effective use of English in the university setting. Students must be tested for placement in ESL 207, 208, 209, or 210. Information about placement testing schedules may be obtained from the English Language Proficiency Testing Office, TESL Centre, 2070 Mackay, Room: 200, (514) 848-2453. A special examination fee is charged. (See §15.1)

Courses

Written work may be required in English for these courses; please consult with the Department.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

NOTE: Students enrolled in a 90-credit degree or an extended credit degree programme in the Faculty of Arts and Science may take ESL courses for degree credit, up to a maximum of six credits.

ESL 207 ***English Language — Intermediate I*** (3 credits)
Prerequisite: Placement by the Concordia English Language Diagnostic Test. A course for students who are not native speakers of English and who need further training in the effective use of English in the university setting. Emphasis is on reading, writing, speaking, and listening skills.
NOTE: Students who have completed ESL 100 or have received credit for ENGL 205 or 206 may not take this course for credit.

ESL 208 ***English Language — Intermediate II*** (3 credits)
Prerequisite: ESL 207, or placement by the

Concordia English Language Diagnostic Test. This course is a continuation of ESL 207.
NOTE: Students who have completed ESL 100 or have received credit for ENGL 205 or 206 may not take this course for credit.

ESL 209 ***English Language — Advanced I*** (3 credits)
Prerequisite: ESL 208, or placement by the Concordia English Language Diagnostic Test. This course is for students who are not native speakers of English. It encourages the development of effective written communication and improved reading comprehension, so that students may perform competently in their other university work.
NOTE: Students who have received credit for ESL 201 or ENGL 205 or 206 may not take this course for credit.

ESL 210 ***English Language — Advanced II*** (3 credits)
Prerequisite: ESL 209, or placement by the Concordia English Language Diagnostic Test. This course is a continuation of ESL 209. Emphasis is upon writing the academic research paper.
NOTE: Students who have received credit for ESL 201 or ENGL 205 or 206 may not take this course for credit.

ESL 290 ***Communication through the Study of Special Topics*** (3 credits)
Prerequisite: Successful completion of ESL 201; ESL 209, or tested equivalence. This course is for non-native speakers of English only. Its primary aim is to increase students' oral fluency in English; its secondary aim is to encourage improved levels of competence in the other language skills: listening, reading, and writing.

TESL 201 ***Speech*** (3 credits)
This course is open only to non-native speakers of English. The aim of the course is to prepare ESL teachers who are not native speakers of English to analyse pronunciation difficulties in terms of the major phonetic and phonemic features of English. Emphasis is placed on appropriate instruction for improving pronunciation.
NOTE: The only TESL programmes towards which the course may be credited are the BED (TESL) and TESL Certificate (Sequence I). Students who have received credit for TESL 221 may not take this course for credit.

TESL 203 ***Effective Communication*** (6 credits)
This course is open only to students who are non-native speakers of English. The aim of the course is to raise the level of oral and written communication of ESL teachers who are non-native speakers of English.
NOTE: The only TESL programme towards which the course may be credited is the TESL Certificate (Sequence I).

TESL 205 ***Introduction to the Structure of English*** (3 credits)
This course is open only to students who are non-native speakers of English. The structure of English is examined together with ways of using this knowledge for the effective teaching of English as a second language.
NOTE: The only TESL programmes towards which the course may be credited are the BEd (TESL) and TESL Certificate (Sequence I). Students who have received credit for TESL 231 may not take this course for credit.

TESL 211 ***Introduction to Language and Applied Linguistics*** (3 credits)
In this course, selected characteristics of language and linguistics are described. Related fields such as psycholinguistics, sociolinguistics, neurolinguistics, and anthropological linguistics are examined. The relevance of work in these areas for language learning and teaching is discussed.
NOTE: This course is open only to students with fewer than 12 TESL credits.

TESL 221 ***Comparative Phonetics*** (3 credits)
This course is specifically designed for students who intend to teach ESL. It provides an introduction to the sound systems of English and French. It compares the two systems and emphasizes techniques for teaching pronunciation in ESL classes.
NOTE: When the course is offered to a group preparing to teach students whose first language is not French, the course content may be adjusted to suit their specific needs.
NOTE: Students who are required to take ESL courses must complete them before commencing TESL 221.

TESL 231 ***Modern English Grammar I*** (3 credits)
This course is primarily designed for students who intend to teach ESL. The course involves a study of important aspects of English structure. It aims to prepare students to apply their knowledge of grammatical structure to the teaching of ESL, for example in the identification and analysis of errors and in the preparation of pedagogical materials.
NOTE: Students who are required to take ESL courses must complete them before commencing TESL 231.

TESL 232 ***Modern English Grammar II*** (3 credits)
Prerequisite: TESL 231 with a grade of "C" or better. This course continues the study of English grammatical structure begun in TESL 231. It aims to increase students' knowledge in this field and to improve their ability to apply this knowledge to the teaching of ESL.
NOTE: Students who have received credit for TESL 431 may not take this course for credit.

TESL 298 ***Selected Topics in TESL*** (3 credits)

TESL 299 ***Selected Topics in TESL*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

TESL 318 ***Theories of Reading and Writing*** (3 credits)
Prerequisite: Nine TESL credits including TESL 324. The course examines the theoretical and research basis for current practice in the teaching of reading and writing. Students become familiar with the concerns and practices of those investigating the development of reading and writing in second-language learners in particular, and become aware of how this is related to teaching materials and activities.

TESL 324 ***Methodology I*** (3 credits)
Prerequisite: TESL 221; TESL 231 or TESL 201; TESL 205, each with a grade of "C" or better, and admission to a TESL programme or permission of the Department. This course reviews current theory in applied linguistics which relates directly to teaching and learning ESL in the classroom. Techniques and methods appropriate to child, adolescent, and adult learners are discussed and demonstrated. In this course the emphasis is on classroom-oriented techniques and materials related to the teaching of listening and speaking.
NOTE: Student must have achieved at least a "C" in this course in order to be recommended for teacher certification upon completion of the programme.

TESL 341 ***Language Acquisition*** (3 credits)
Prerequisite: TESL 221; TESL 231, or permission of the Department. This course analyses developmental processes of both native-language and second-language acquisition. Research is examined in terms of implications for second-language teaching.

TESL 351 ***History and Development of the English Language*** (3 credits)
Prerequisite: TESL 221; TESL 231, or permission of the Department. A study of the morphological, phonological, syntactical, and semantic changes that have taken place from Proto-Indo-European to the present. Students are required to do elementary linguistic analyses of texts from different stages in the development of the language.

TESL 361 ***Teaching English for Specific Purposes*** (3 credits)
Prerequisite: TESL 324, or permission of the Department. This course provides instruction in the teaching of language skills to those who require English either as an auxiliary to their scientific, technical, or professional skills or as a medium for training in these areas.

TESL 385 ***Internship I*** (3 credits)
Prerequisite: TESL 324 and TESL 413 previously or concurrently. This course is offered as part of a cluster of daytime Fall-term courses which introduces the student teacher to the ESL classroom. Students observe experienced teachers, and have opportunities for micro-teaching, as well as some teaching to ESL students. Opportunities are provided for observation and practice with ESL learners at different ages and levels of proficiency in English.
NOTE: Students who have received credit for TESL 433 may not take this course for credit.
NOTE: Students must have achieved at least a "C" grade in this course in order to be recommended for teacher certification upon completion of the programme.
NOTE: Students will complete the in-school portion of this course in a (M.E.Q.-approved) private or public Primary or Secondary school (where French is the language of instruction), in order to be recommended for teacher certification at these levels. Teaching practice completed with adults will not qualify students to be recommended for teacher certification.

TESL 398 ***Selected Topics in TESL*** (3 credits)

TESL 399 ***Selected Topics in TESL*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

TESL 413 ***Audio-Visual Aids*** (3 credits)
Prerequisite: TESL 324 previously or concurrently. This course examines audio-visual resources and their effective use in second-language teaching. Students are given experience with the technical equipment generally available for use in second-language classrooms. In addition, students produce their own audio-visual materials.

TESL 415 ***Testing and Evaluation*** (3 credits)
Prerequisite: TESL 324. An introduction to the general purposes and methods of language testing, with a description of the chief characteristics of sound educational measures. The course examines the processes involved in constructing and administering tests designed to evaluate achievement in the ESL classroom.

TESL 424 ***Methodology II*** (3 credits)
Prerequisite: TESL 324. This course continues the presentation of techniques and methods begun in TESL 324. In this course the emphasis is on classroom-oriented techniques

and materials related to the teaching of reading and writing.
NOTE: Students must have achieved at least a "C" in this course in order to be recommended for teacher certification upon completion of the programme.

TESL 430 ***Computers in Language Learning*** (3 credits)
Prerequisite: TESL 324. This course allows students to investigate the many facets of the field of Computer-Assisted Language Learning (CALL). The focus is on the evaluation and selection of CALL materials, the integration of computers into an ESL/EFL environment, practical aspects of using computers with students, and the production of teaching materials for CALL. Stress is placed on the pedagogical aspects of CALL, with technical considerations introduced only to the level required for teachers to make use of computers in a teaching environment. No knowledge of computer programming is required, nor will it be taught.

TESL 433 ***Practicum*** (3 credits)
Prerequisite: TESL 324. This course is open only to students enrolled in the TESL Certificate Sequence I or II. In this course, students practise techniques which were introduced in their methodology courses. There are opportunities for observation of ESL classes taught by experienced teachers. Techniques presented in TESL 324 and 424 are practised in micro-teaching, peer teaching, and sessions with groups of ESL students. Requirements include lesson planning and evaluation of one's own teaching performance.
NOTE: Students must have achieved at least a "C" grade in this course in order to be recommended for teacher certification upon completion of the programme.
NOTE: Students who have received credit for TESL 385 may not take this course for credit.

TESL 434 ***Error Analysis*** (3 credits)
Prerequisite: Fifteen TESL credits including TESL 324 and TESL 341. In this course, current theories of second-language acquisition are reviewed and applied. Each student carries out analyses of ESL learners' language, focusing on patterns of errors. The identification and classification of errors is followed by the development of teaching materials which the student uses in order to help learners overcome some persistent errors.

TESL 442 ***Problems in Bilingualism*** (3 credits)
Prerequisite: Fifteen TESL credits. This course is an introduction to some linguistic, social, and psychological aspects of languages in contact, with particular attention to the situation in Canada. Emphasis is placed on the description and evaluation of different types of bilingual education programmes and the factors which influence the choice of particular models.

TESL 485 ***Internship II*** (6 credits)
Prerequisite: TESL 385, or equivalent. This course provides supervised teaching in ESL classes, in addition to seminars and discussions on teaching techniques appropriate to different ages and levels of proficiency in English. Students take a daytime Winter-term section, together with a daytime section of TESL 424. Evening sections of these courses are open to experienced teachers who are currently teaching ESL.
NOTE: Students must have achieved at least a "C" grade in this course in order to be recommended for teacher certification upon completion of the programme.
NOTE: Students will complete the in-school portion of this course in a (M.E.Q.-approved) private or public Primary or Secondary school (where French is the language of instruction), in order to be recommended for Québec provincial teacher certification at these levels. Teaching practice completed with adults will not qualify students to be recommended for teacher certification.
NOTE: Students who completed TESL 385 in a Primary school will change to a Secondary school in this course. Those who taught in a Secondary school will change to a Primary school.

TESL 491 ***Study in a Special Subject*** (3 credits)
Prerequisite: Permission of the Department. This course provides an opportunity for advanced students to intensify their study beyond the area of specialization already represented by the curriculum. The selected subject varies with the special interest of the instructor conducting the course in any given year.

TESL 492 ***Study in a Special Subject*** (3 credits)
Prerequisite: Permission of the Department. A student repeating TESL 491 registers for credits under TESL 492.

TESL 498 ***Advanced Topics in TESL*** (3 credits)

TESL 499 ***Advanced Topics in TESL*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.330 THEOLOGICAL STUDIES

Faculty

Chair
PAMELA BRIGHT, *Associate Professor*

Graduate Programme Director
SEAN E. McEVENUE, *Professor*

Visiting Scholar
CHARLES KANNENGIESSER

Associate Professors
PAUL GARNET
JOSEPH HOFBECK
RUSSELL P. MOROZIUK
CHRISTOPHE POTWOROWSKI
MALCOLM SPICER

Location

Loyola Campus
Hingston Hall B, Room: HB 314
(514) 848-2475

Department Objectives

Theology builds a bridge between religious experience and human society. To expand understanding of the human person and of God, the Department seeks to make accessible to all its students an immense tradition of knowledge-especially through interpretation theory, historical analysis, psychological insight, and theoretical elaboration.
Within the spectrum of world religions, it focuses on the Christian experience, and the Roman Catholic tradition in particular. The Department is dedicated to training professional theologians and researchers while expanding the horizons of those who wish to appreciate their heritage.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
Students must have their programmes approved by the Department.
All courses in the Department are open to any qualified student of Concordia.

60 BA Honours in Theological Studies

1. Required courses: THEO 300^3, 310^3, 330^3, 350^3, 360^3, 384^3, 387^3, 493^3, 494^3
2. Six credits must be chosen in each of theological areas: Old Testament, New Testament, Systematics, History of Christianity, Christian Ethics
3. A maximum of nine credits may be chosen among the 200-level courses
4. Six credits must be taken as cognate, offered in another department, from courses such as Introduction to Philosophy, Critical Thinking, History of the Roman Empire, Biblical Hebrew, Hellenistic Greek, Latin, German.
5. A group of 18 to 24 credits within one area must be elected, in consultation with the Department, in order to provide each student with a degree of expertise in some area of theology.
6. Six credits must be taken in a language required for advanced work, such as Biblical Hebrew, Hellenistic Greek, Latin, or German.

54 BA Specialization in Theological Studies

With permission of the Department, a student may be admitted to a Specialization programme.

1. Required courses: THEO 300^3, 310^3, 330^3, 350^3, 360^3, 384^3, 387^3
2. Six credits must be chosen in each of theological areas: Old Testament, New Testament, Systematics, History of Christianity, Christian Ethics
3. A maximum of nine credits may be chosen among the 200-level courses
4. A group of 18 to 24 credits within one area must be elected, in consultation with the Department, in order to provide each student with a degree of expertise in some area of theology.

36 BA Major in Theological Studies

Required courses: THEO 300^3, 310^3, 330^3, 350^3, 360^3, 384^3, 387^3
12-15 Elective credits. No more than six credits may be taken from among the 200-level courses.

24 Minor in Theological Studies

1. Required course: THEO 201^3
2. No more than six further credits from the 200 level
3. A minimum of nine credits from THEO 300^3, 310^3, 330^3 (or 331^3 and 332^3), 350^3, 360^3
4. A minimum of six credits chosen from the 400 level

Courses

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

THEO 201 ***Introduction to Theology*** (3 credits)
Key theological concepts such as God, creation, sin, incarnation, redemption, church, last things. The nature of theological inquiry: historical, exegetical, and systematizing methods. Both concepts and methods are presented in their historical and ecumenical perspectives. Introduction to the principal aspects of academic theological work.

THEO 210 ***Introduction to Catholic Beliefs*** (3 credits)
The basis and essentials of the Catholic faith: Bible, God, creation, Jesus Christ, Holy Spirit, Church, sacraments, ultimate destiny, and salvation. Specific practices and values of the Christian community. The relationship of Church to society as exemplified in social reforms and liberation theology. This course, together with THEO 330 or THEO 350, meets the Comité catholique theology requirements for those intending to teach religion in Québec Catholic Primary schools.
NOTE: Students who have received credit for THEO 331 or THEO 332 may not take this course for credit.

THEO 217 ***Christian Mysticism and Psychology*** (3 credits)
The study of Christian mystics and mystical tradition. Attention is given to the nature, meaning, and theological and psychological roots of mystical experience and whether the search for such experience is paranormal behaviour or an authentic human endeavour.
NOTE: Students who have received credit for THEO 215, THEO 216 may not take this course for credit.

THEO 219 ***Bible and Western Culture*** (3 credits)
The influence of the Bible on Western culture and civilization in such areas as literature, philosophy, politics, economics, art, architecture, psychology, science, and technology.
NOTE: Students who have received credit for THEO 220, THEO 221 may not take this course for credit.

THEO 222 ***Introduction to the Bible*** (3 credits)
How the Bible (Old and New Testaments) came into being. Major figures and events in the light of the historical and cultural background and of a literary analysis of the text.
NOTE: Students who have received credit for THEO 300 or THEO 310 may not take this course for credit.

THEO 226 ***Theology and Myth*** (3 credits)
The nature, function, and meaning of myth in Christian theology compared with its function in other fields of human knowledge, such as literature, religion, psychology.

THEO 232 ***Christianity and Society*** (3 credits)
The sociological dimensions of Christianity throughout history. The study of the interchange between social forces and culture on the one hand and the doctrine and institutions of Christianity on the other.

THEO 240 ***Theology and the Imagination*** (3 credits)
Classical art and myth: the poetic foundations of theological discourse and their relation to the imagination of the artist.

THEO 241 ***Theology and the Arts*** (3 credits)
An exploration within recent forms in painting, poetry, and film. Theological reflection to discover the civilizing function of images of God produced by the imagination.

THEO 264 ***Theology and Psychology*** (3 credits)
This course is a theological exploration in psychological studies embracing: a) a critical and constructive consideration of Freud and Jung; b) a survey of neo-Freudian social psychologists, such as Horney and Sullivan; c) a survey of third-force psychologists such as Rogers, Maslow, and May.

THEO 266 ***Theology and Jung*** (3 credits)
The multifaceted methodology of C.G. Jung; themes relating to psychology and theology.

THEO 270 ***Women and the Christian Church*** (3 credits)
An examination of the role of women in the course of the history of the Church. Prototypes and images of women in Scripture and theological tradition.
NOTE: Students who have received credit for THEO 471, THEO 472 may not take this course for credit.

THEO 298 ***Selected Topics in Theology*** (3 credits)

THEO 299 ***Selected Topics in Theology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

THEO 300 ***The Old Testament*** (3 credits)
A survey of Old Testament texts (in English

translation), with an introduction to contemporary methods of interpretation and appreciation.

THEO 310 ***The New Testament*** (3 credits)
The date, authorship, purpose, structure, and sources of the books of the New Testament. Understanding their content in its historical setting.

THEO 330 ***Principles of Systematic Theology*** (3 credits)
An introduction to the types, methods, tools, and sources of theology. The principal themes of Christian theology are investigated according to their biblical, historical, and philosophical roots.

THEO 350 ***Foundations of Christian Ethics*** (3 credits)
An introduction to the study of Christian ethics; the role of Christian beliefs for a new foundation of ethics in the present intellectual, cultural, and historical situation.

THEO 360 ***Introduction to History of Christianity*** (3 credits)
The historical dimensions of Christian existence, its institutions, personalities, major events. Methods of inquiry.

THEO 362 ***History and Theology of the Christian East*** (3 credits)
A survey of the history and theological literature, themes, and methods characteristic of the Christian East.
NOTE: Students who have received credit for THEO 444, THEO 462 may not take this course for credit.

THEO 366 ***Protestant Christianity*** (3 credits)
An introduction to the history and theology of the principal movements and major types of denominations which have developed from the sixteenth-century Reformation.
NOTE: Students who have received credit for THEO 466 may not take this course for credit.

THEO 369 ***Canadian Church History*** (3 credits)
The history and theological movements that identified the various Christian churches in the Canadian mosaic.
NOTE: Students who have received credit for THEO 468, THEO 469 may not take this course for credit.

THEO 370 ***Christian Liturgy*** (3 credits)
The history and theology of liturgical praxis in Christian tradition.

THEO 372 ***Christian Spirituality*** (3 credits)
Historical and theological study of the literature of spirituality in the various phases of Christian history.

THEO 384 ***Theology of Judaism*** (3 credits)
An introduction to the history, texts, and theology of Judaism.
NOTE: Students who have received credit for THEO 382, THEO 383 may not take this course for credit.

THEO 387 ***World Religions*** (3 credits)
An introduction to the history, texts, and theology of world religions.
NOTE: Students who have received credit for THEO 385, THEO 386 may not take this course for credit.

THEO 390 ***Controversial Issues in Ethics*** (3 credits)
Examination of controversial issues: e.g., the ethics of medical problems such as AIDS, abortion; moral dilemmas of economic life; relation of ethics to politics: peace, war, etc.
NOTE: Students who have received credit for THEO 456, THEO 457 may not take this course for credit.

THEO 398 ***Selected Topics in Theology*** (3 credits)

THEO 399 ***Selected Topics in Theology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

NOTE: All 400-level Theology courses have as their prerequisite an appropriate 300-level Theology course, or its equivalent, with permission of the Department.

THEO 405 ***The Pentateuch*** (3 credits)
Prerequisite: THEO 300, or equivalent with permission of the Department. A reading of selected passages. Discussion of current research into the meaning of these ancient books. Methods of inquiry and their application.

THEO 406 ***The Historical Books*** (3 credits)
Prerequisite: THEO 300, or equivalent with permission of the Department. A reading of selected passages. Methods of interpreting historical texts in the Old Testament and of determining both their historicity and their meaning are discussed and applied.

THEO 407 ***The Prophetic Traditions*** (3 credits)
Prerequisite: THEO 300, or equivalent with permission of the Department. A reading of selected passages. Historical backgrounds are studied. Current methods for interpreting ancient literature are discussed and applied.

THEO 408 ***The Psalms and Wisdom Literature*** (3 credits)
Prerequisite: THEO 300, or equivalent with permission of the Department. A reading of

selected passages. Current methods for interpreting ancient literature are discussed and applied. A variety of literary genres, literary forms, and theological themes is identified and analysed.

THEO 409 ***Seminar in Old Testament Literature*** (3 credits)
Prerequisite: THEO 300, or equivalent with permission of the Department. A specific book of the Old Testament is studied in the light of ancient and modern commentaries and of current research.

THEO 411 ***The Synoptic Gospels*** (3 credits)
Prerequisite: THEO 310, or equivalent with permission of the Department. Exegesis of selected passages in the light of recent scholarship. Studies in their doctrinal contents. Historical inquiry into the works and words of Jesus.

THEO 412 ***Acts and the Beginnings of Christianity*** (3 credits)
Prerequisite: THEO 310, or equivalent with the permission of the Department. Acts, Hebrews, James, and I Peter: exegesis of selected passages in the light of recent scholarship, studies in their doctrinal contents. Historical inquiry into the life of the early Church.

THEO 414 ***The Johannine Writings*** (3 credits)
Prerequisite: THEO 310, or equivalent with the permission of the Department. An examination of Gospel, Letters, and Revelation situated within the context of first-century Christian and non-Christian religious thought.

THEO 416 ***The Theology of St. Paul*** (3 credits)
Prerequisite: THEO 310, or equivalent with permission of the Department. A historical-critical examination of Paul's theological thought, tracing its development through the chronological sequence of his letters. The focus is on what is central and normative for Christian theology and what is particularly relevant for today.

THEO 421 ***Patristics*** (3 credits)
Prerequisite: THEO 360, or equivalent with permission of the Department. The origin and development of theology, monasticism, liturgy, literature, biblical studies, and exegesis on the early centuries of Christian history. Representative writings and personalities from the Greek and Latin traditions are selected and studied.

THEO 423 ***History of Christian Thought: Beginnings to Aquinas*** (3 credits)
Prerequisite: THEO 360, or equivalent with permission of the Department. A survey course on the history of Christian thought from the origins of the Christian Church to the High Middle Ages.

THEO 425 ***History of Christian Thought: Thomas Aquinas to the Present*** (3 credits)
Prerequisite: THEO 360, or equivalent with permission of the Department. The theological study of the events and ideas leading from the High Middle Ages through the Reformation into the modern world, with its critical challenges to the Christian churches and their beliefs.

THEO 430 ***The Christian Understanding of God*** (3 credits)
Prerequisite: THEO 330, or equivalent with permission of the Department. A study of the Christian understanding of God in the Bible and tradition. Selected readings from representative theologians.

THEO 431 ***Theology of Revelation*** (3 credits)
Prerequisite: THEO 330, or equivalent with permission of the Department. An inquiry into Revelation as a central theme of fundamental theology. The contributions of representative theologians to the development of the theology of Revelation.

THEO 432 ***Theology of the Human Person*** (3 credits)
Prerequisite: THEO 330, or equivalent with permission of the Department. The study of the human person in biblical literature from the theological perspective. The distinctiveness of theological understanding as compared with the methods of philosophy, psychology, natural sciences, and literary studies.

THEO 434 ***Word and Sacrament*** (3 credits)
Prerequisite: THEO 330, or equivalent with permission of the Department. The sharing of religious values through spoken word, Scriptures, iconic representation. The use of ritual and symbolic communication in sacramental actions, especially in baptism and eucharist. The possibility of trans-cultural sharing amid cultural diversity.

THEO 438 ***Eschatology*** (3 credits)
Prerequisite: THEO 330, or equivalent with permission of the Department. The interface of biblical, theological, and scientific data on history, time, death, immortality and the understanding they cast on the ultimate destiny of human beings.

THEO 440 ***Theology of the Church*** (3 credits)
Prerequisite: THEO 330, or equivalent with permission of the Department. The ministry of Jesus and the post-Resurrection community. Belief in the Holy Spirit's presence in the Church. Tasks of Christians in the world. Faith and freedom. Ecclesial teachership and authority. Pastoral office and ministry.

THEO 442 ***Christology*** (3 credits)
Prerequisite: THEO 330, or equivalent with permission of the Department. The Christian understanding of Jesus the Christ. A biblical, historical, and theological investigation of the person and mission of Jesus.

THEO 446 ***Scripture and Theology*** (3 credits)
Prerequisite: THEO 300 or THEO 310 or THEO 330, or equivalent with permission of the Department. The role played by scriptural interpretation in the formation of theological doctrines from the earliest period of Christian tradition to current time.

THEO 452 ***Bio-Ethics*** (3 credits)
Prerequisite: THEO 350, or equivalent with permission of the Department, or credit in health sciences. A study of the moral aspects of human genetics, experimentation on human beings, behaviour control, health care, death, and dying. Those issues of biomedical practices, institutions, and policy-making processes that involve religious values and principles.
NOTE: Students who have received credit for THEO 453, THEO 454 may not take this course for credit.

THEO 455 ***Social Ethics*** (3 credits)
Prerequisite: THEO 350, or equivalent with permission of the Department. Theological and ethical explorations in the more complex aspects of human life in society: economics, politics, social relations, culture. Major social ethical practices and discourses of the Christian churches.

THEO 458 ***Personal Ethics*** (3 credits)
Prerequisite: THEO 350, or equivalent with permission of the Department. The ethical and theological interpretations of those aspects of moral life which involve direct interpersonal relationships, such as human sexuality, marriage, family, alternative lifestyles, truth telling, friendship, paternalism.

THEO 493 ***Honours Theology Seminar I*** (3 credits)
Prerequisite: Permission of the Department. The topics of the seminar vary from year to year. The seminars focus upon an oral presentation by each student.

THEO 494 ***Honours Theology Seminar II*** (3 credits)
Prerequisite: Successful completion of THEO 493 and permission of the Department. See THEO 493 above.

THEO 498 ***Advanced Topics in Theology*** (3 credits)

THEO 499 ***Advanced Topics in Theology*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.340 URBAN STUDIES

Director
JOHN ZACHARIAS, *Associate Professor*

Assistant Professor
HAIQING XU

Location

Sir George Williams Campus
J.W. McConnell Building, Room: LB 641
(514) 848-2050

Department Objectives

Urban Studies is a multidisciplinary programme, designed to introduce the student to the processes of planned change in urban environments. Urban Studies provides a core of urban-planning courses involving field studies, planning projects, and the acquisition of technical skills. Complementary courses in Sociology, Political Science, Economics, and Geography provide the necessary approaches and understanding in order to consider complex urban development. The programme is designed for students planning to undertake a post-graduate degree in planning or a related field and also provides required training for work in the planning, real estate, and social service fields.

Programmes

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.
Students should consult with the programme coordinator prior to registering for Urban Studies courses. Students exempted from any required courses must replace them with others that are relevant to the programme, chosen in consultation with the programme coordinator.

For the following programmes URBS 280[6] may serve as a prerequisite for courses in Urban Sociology, Urban Geography, and Urban Politics.

66 BA Honours in Urban Studies
Stage I
6 URBS 280[6]
6 SOCI 212[3], 213[3] or ECON 221[3], 222[3]
6 ECON 201[3], 203[3]
6 GEOG 211[6] or POLI 250[6] or SOCI 203[3], 220[3]
Stage II
6 GEOG 331[6]
6 SOCI 350[3], 351[3] or SOCI 353[3], 354[3] or POLI 349[3], 352[3]
3 ECON 392[3]
6 URBS 379[3], 382[3]
3 URBS 334[3]
Stage III
12 URBS 433[6], 481[6]
6 URBS elective credits at the 400 level

63 BA Specialization in Urban Studies
Stage I
6 URBS 280[6]
3 SOCI 212[3] or MATH 207[3]
6 ECON 201[3], 203[3]
6 GEOG 211[6] or POLI 250[6] or SOCI 203[3], 220[3]
Stage II
6 GEOG 331[6]
6 SOCI 350[3], 351[3] or SOCI 353[3], 354[3] or POLI 349[3], 352[3]
3 ECON 392[3]
6 URBS 379[3], 382[3]
3 URBS 334[3]
Stage III
12 URBS 433[6], 481[6]
6 URBS elective credits at the 400 level

42 BA Major in Urban Studies
Stage I
6 URBS 280[6]
3 SOCI 212[3] or MATH 207[3]
6 ECON 201[3], 203[3]
Stage II
6 GEOG 331[6]
6 SOCI 350[3], 351[3] or SOCI 353[3], 354[3] or POLI 349[3], 352[3]
3 ECON 392[3]
3 URBS 379[3] or 382[3]
Stage III
6 URBS 433[6] or 481[6]
3 URBS elective credits at the 400 level

30 Minor in Urban Studies
6 URBS 280[6]
24 Credits chosen from URBS 334[3], 379[3], 382[3], 433[6], 481[6], 485[3], 486[3], 487[3], 488[3]; ECON 201[3], 203[3], 392[3]; GEOG 331[6]; POLI 250[6], 349[3], 352[3]; SOCI 350[3], 351[3], 353[3], 354[3]

Courses

NOTE: Please consult §200.1 for a list of equivalent courses.

URBS 280 ***Urban Development*** (6 credits)
This course surveys urban development as a physical phenomenon, created and reshaped by technological change and socio-economic

forces. Some reference is made to the part urban planners may play in this process.

URBS 334 ***Urban Design Graphic Techniques*** (3 credits)
Prerequisite: URBS 280. This course familiarizes the student with graphic techniques and materials used by planners and urban designers in preparing their plans for public exposition and for implementation.

URBS 379 ***Urban Planning in Historical Perspective*** (3 credits)
Prerequisite: URBS 280. A broad frame of reference is developed by using both evolutionary and archetypal approaches to elucidate both long- and short-term historical perspectives. The evolutionary concept is used to explore the relationship between recent Canadian, American, and British planning experience. In contrast, plan form and planning style are shown as dynamic systems of archetypes, responding over time to shifting cultural preoccupations and world views.

URBS 382 ***Legal Aspects of Urban Planning*** (3 credits)
Prerequisite: URBS 280. The legal aspects of land-use planning are discussed including zoning, conservation, and restoration of historic enclaves and older neighbourhoods, environmental protection and related issues, in the context of legislation and jurisprudence in Québec and Canada since the beginning of the twentieth century.

URBS 433 ***Urban Design*** (6 credits)
Prerequisite: URBS 334, or permission of the coordinator. An applied course in urban design and land-use planning. An overview of current theory and practice is balanced, during the second term, by studio-planning projects emphasizing a team approach.
NOTE: Students who have received credit for GEOG 433 may not take this course for credit.

URBS 481 ***Seminar in Urban Studies*** (6 credits)
Prerequisite: URBS 379, URBS 382; 60 credits; enrolment in Urban Studies programme. This is an advanced seminar which studies urban phenomena in the Canadian context. The seminar explores relevant urban issues and seeks the development of urban policy positions. Students are asked to prepare and submit appropriate research policy papers.

URBS 483 ***Directed Studies in Urban Planning I*** (3 credits)
Prerequisite: URBS 379, URBS 382; 60 credits; enrolment in Urban Studies programme. A field assignment is designed and carried out by the student in conjunction with a professional firm active in planning. Students are responsible for negotiating their own placements. They must meet with their academic supervisor during the term and produce a final report.

URBS 484 ***Directed Studies in Urban Planning II*** (3 credits)
Prerequisite: URBS 483. A second field assignment may be designed and carried out by the student in conjunction with a professional firm active in planning. Students are responsible for negotiating their own placements. They must meet with their academic supervisor during the term and produce a final report.

URBS 485 ***Special Problems in Planning Practice*** (3 credits)
This course deals with equivocal planning issues related to the conflict between growth and change and the need to maintain community and environmental stability. Subjects examined may include gentrification, public housing, women and the city, and planning in harmony with nature. Particular attention is paid to questions of professional discretion and potential influence raised by such issues.
NOTE: This course is limited to Urban Studies students who have completed 30 Urban Studies credits.

URBS 486 ***Location Analysis and Site Selection Criteria*** (3 credits)
Prerequisite: GEOG 331. Criteria used in the selection of sites for public institutions (educational, medical, cultural, etc.) and commercial activities are presented. Location analysis methods and models are analysed and discussed. The analysis of the local environments of potential sites is examined with respect to the building of a particular facility. The role of planning in site selection is integrated into the discussion. Students undertake a location study in which they apply theory and methods.

URBS 487 ***The Computer and Urban Planning*** (3 credits)
Prerequisite: URBS 334; INTE 290. Students solve a micro-scale urban-planning problem while they learn a computer-aided design programme. Tutorials in the computer lab are followed by individual project development.

URBS 488 ***Urban Ecology*** (3 credits)
Prerequisite: URBS 280, URBS 379, URBS 382. This course studies the city as an ecosystem, qualitatively influenced by direct and indirect human interventions. It analyses the city as a support system to sustain human life and provide environmental health for generations to come. The course considers the harmonization of human needs within a sustainable urban environment.

31.400 COMPUTER SCIENCE

The Department of Computer Science offers a Minor in Computer Science available to students in the Faculty of Arts and Science. For further details on this programme, see §71.80.5.

31.500 COLLEGES, INSTITUTES AND SCHOOLS

The Faculty of Arts and Science is the largest Faculty in the University. In order to combat the depersonalization so often found in a large faculty, the Faculty of Arts and Science has created smaller, more manageable units offering a personalized approach to education. At present, there are five such units in existence: Liberal Arts College, Lonergan University College, School of Community and Public Affairs, Science College, and Simone de Beauvoir Institute. Each unit is composed of a group of students and fellows who are united by a particular philosophy of education.

Each unit operates in much the same fashion. Normally a student admitted to the University will enrol in a specific department-based programme — a Major, Specialization, or Honours. Students in the Liberal Arts College may, however, elect to enrol in the College Major in Western Society and Culture instead of in a departmental programme. Similarly, students in the Simone de Beauvoir Institute may enrol in a Major programme in Women's Studies. Students attracted by the particular educational opportunities offered by one of the units will apply to the unit in question. Once admitted to the College, Institute, or School of their choice, students may benefit from the academic curriculum, the extra-curricular activities, and social and intellectual environment provided in each of these units. It is the goal of these units to assist students to broaden their specialized disciplinary education with carefully chosen electives, with specially designed tutorials, and with career-oriented advising, all set in a more personal and friendly "university college" environment.

Each unit has a physical location of its own, where its students may gather to exchange ideas, whether in the classroom or in one of the lounges provided for such interaction. As well, there is a library of basic books and periodical literature. From time to time, there will be planned activities, special-interest seminars, and stimulating lectures by invited guest speakers.

Each unit has a group of faculty members from within the University assigned as fellows or tutors, whose major function will be to act as student advisers. Together, students and fellows or tutors plan a carefully integrated undergraduate programme based on the philosophy of education promoted.

The advantage of this approach to education is that students may utilize the resources of a large Arts and Science Faculty, yet still enjoy the effective interchange of ideas that only a small unit can provide.

31.515 CO-OPERATIVE EDUCATION

Through the Institute for Co-operative Education, the University offers programmes in the co-operative format in the Departments of Chemistry and Biochemistry, Economics, Études françaises, Mathematics and Statistics, and Physics in the Faculty of Arts and Science; in the Centre for Building Studies and the Department of Computer Science in the Faculty of Engineering and Computer Science; and in the Departments of Accountancy, Decision Sciences and Management Information Systems and Marketing in the Faculty of Commerce and Administration.

Co-operative programmes in the Faculty of Arts and Science are open to students who are enrolled in many of the Honours and Specialization programmes offered by the above Departments.

As it becomes feasible the University may consider offering other disciplines in the co-op format. (Please see §24 of this Calendar.)

31.520 LIBERAL ARTS COLLEGE

Principal and Permanent Fellow
LASZLO K. GÉFIN, *Associate Professor, English*

Vice-Principal and Permanent Fellow
CLAUDE M. LEVY, *Associate Professor, Liberal Arts College*

Permanent Fellows
GEOFFREY FIDLER, *Associate Professor, Education*
FREDERICK H. KRANTZ, *Associate Professor, History*
HARVEY SHULMAN, *Associate Professor, Political Science*

Fellows
CLAUDIA CLAUSIUS, *Assistant Professor, Liberal Arts College*
LORI J. CLIFFORD, *Lecturer, Liberal Arts College*
DONALD E. GINTER, *Professor, History*
VIRGINIA NIXON, *Coordinator, Art History and Music*
GEZA SZAMOSI, *Principal, Science College*
RONALD S. WAREHAM, *Associate Professor, English*

Associate Fellows
JADWIGA KRUPSKI, *Lecturer, English*
ANDRAS UNGAR, *Lecturer, English*

Location

Sir George Williams Campus
Annex RR, Room: 103
(514) 848-2565

Objectives

The Liberal Arts College, a small community of fellows and students, provides a unique liberal arts emphasis within the Faculty of Arts and Science. Built on a core of seven courses, the multidisciplinary curriculum is designed to guide students in exploring the foundations and development of Western civilization and culture. The aim is to foster the major values of the Western tradition—those of critical thinking and respect for intellectual freedom.
The major goal of Liberal Arts College is to assist the student in the process of becoming an educated person. The College seeks to translate into modern idioms the traditional vision of education as a preparation for life. Its core courses and seminars, sharing a common concern with the changing nature of society and culture, aim at the development of an informed critical consciousness.
Emphasis is also placed on sharpening the basic expressive and analytic tools indispensable to social and cultural understanding. All College students are expected to present, or to acquire, a knowledge of a second language (normally, French), necessary for their research and to write and to express themselves clearly. Training in research techniques is stressed, and original, independent work encouraged.
Liberal Arts College, linking demanding general education to significant specialization, is committed to serious intellectual work. Through its curriculum, staff, standards, and academic environment, it hopes to communicate the excitement and creativity of such engagement to its students.

Liberal Arts College Admission and Programme Requirements
Students admitted to the University and seeking to enter the College must have a "B" average from CEGEP, or its equivalent. All students upon admission must demonstrate proficiency in English composition and a second language, or undertake necessary make-up work.* All applicants should apply through the Office of the Registrar; they should also call or write the College for an interview. Mature students are admitted to the College on the basis of an interview and an examination of their record. Full-time degree candidates will normally complete their College core curriculum within three academic years; part-time degree candidates should complete their College core curriculum within six academic years. Students who have been admitted to departmental Honours programmes must maintain a "B" average in their College core curriculum; all others must maintain a "C" average in their College core curriculum. All Honours students in the College are expected to undertake significant original work, on a staff-guided basis, in their final year.
**Les étudiantes et étudiants francophones devront donner la preuve de leur connaissance de la langue anglaise.*

Staff
Faculty fellows chosen from the University's Departments form the staff of all College courses, seminars, and tutorials. Teaching fellows are resident in the College, as is its principal, who also

teaches in the core curriculum. It is intended that, each year, a distinguished visiting fellow, selected on the basis of outstanding academic achievement and renown, will be resident and will teach in the College.

Facilities
Liberal Arts College is located on Concordia University's downtown Sir George Williams Campus. Much of its seminar and tutorial teaching is done in the same building that houses the College's principal and core fellows. The College has student study areas, a course-materials library, and audio-visual facilities, as well as common rooms and a collection of important newspapers, journals, and periodicals. The College is the focus of an extra-curricular programme of visiting speakers and cultural events, and is a place where the exchange of ideas and views generated in courses and seminars continues on a more informal basis.

Counselling
Close student-faculty contact and exchange is part of the Liberal Arts College's stress on serious intellectual work. Each student is assigned to a faculty fellow who acts as a personal adviser, and who follows the student's progress through the College, advising on the choice of disciplinary or area specialization. All students' work is evaluated annually by the principal and fellows.

College Council
Council, composed of fellows and students, is the formal decision-making body of Liberal Arts College. It meets regularly, chaired by the principal, as a forum in which current issues and future policy are discussed and decisions taken. Council is that body which ensures the democratic participation of all members of the College in its on-going academic and extra-curricular work.

Programmes

All Liberal Arts College students must take the core curriculum. These interrelated courses, including seminar and tutorial work, as well as the final-year Integrative Seminar, constitute a significant segment of the course work required for College-sponsored BA programmes. Liberal Arts College stresses Honours work, although a student may, with the permission of the College, combine the core curriculum with a departmental Specialization or Major programme, or with the Individual Studies programmes. Selected students may, with College permission, be admitted to the College's BA Major in Western Society and Culture.

42 Liberal Arts College — Core Curriculum

	Stage I		*Stage III*
15	LBCL 291[6], 292[6], 294[3]	12	LBCL 490[6], 493[3], 497[3]
	Stage II		
15	LBCL 391[6], 393[6], 394[3]		

In addition to completing the core curriculum, students must meet the Faculty of Arts and Science degree requirements and complete a departmental Major, Specialization, or Honours programme, or the Individual Studies programme, or the Major in L.A.C. Western Society and Culture.
The core curriculum may also be applied towards Specialization or Honours work in the Individual Studies Programme. (See §31.170 of this Calendar).
All College students must consult with a College adviser before selecting courses in other disciplines or fields. Generally, courses in the Liberal Arts College are open only to members of the College.

Honours candidates must maintain a "B" average in their College courses, with no grade lower than a "C". Students in a Major or Specialization programme must maintain a "C" average in their College courses, with no grade lower than a "D".

42 BA Major in Western Society and Culture

	Stage I		*Stage III*
15	LBCL 291[6], 292[6], 294[3]	12	LBCL 490[6], 493[3], 497[3]
	Stage II		
15	LBCL 391[6], 393[6], 394[3]		

The College advises students who are enrolled in the BA Major in Western Society and Culture to take, in addition, some form of concentrated study (Major, Minor, etc.) within a single Department or field of study.

Further information on core courses and College programmes generally may be obtained either by writing for the Liberal Arts College Informational Brochure or by calling the Liberal Arts College. Personal interviews with a fellow of Liberal Arts College may be arranged through the secretary.

Admission into a departmental Honours programme requires the approval of the Department.

Students seeking admission to a departmental Honours programme will be bound by the Honours requirements outlined in §16.2.3 of this Calendar.

Courses

LBCL 291 ***Structure and Dynamics of Western Civilization I*** (6 credits)
Prerequisite: Registration in the Liberal Arts College, or permission of the College. This course emphasizes the intellectual, cultural, and political traditions from the biblical period and classical antiquity to the mid-seventeenth century. Texts studied are related to changing social and historical contexts. Primary sources may include Plato, *Republic,* Marcus Aurelius, *Meditations,* Thomas Aquinas, *Summa Theologiae,* and Machiavelli, *Prince and Discourses.*

LBCL 292 ***Modes of Expression and Interpretation I*** (6 credits)
Prerequisite: Registration in the Liberal Arts College, or permission of the College. A study of major Western literary, religious, and philosophical traditions, involving the reading and interpretation of significant texts from antiquity to the mid-seventeenth century. Emphasis is placed on development of writing skills and interpretative analysis. Primary texts may include Homer, *Odyssey,* Plato, *Symposium,* Augustine, *Confessions,* Dante, *The Divine Comedy,* and Racine, *Phèdre.*

LBCL 294 ***History of Art and Music I*** (3 credits)
Prerequisite: Registration in the College, or permission of the College. This course is an integrated study of the nature of the visual arts and music, from antiquity to the mid-seventeenth century. Artistic and musical expression is examined through chronological and thematic approaches, with attention to the relation between art, music, and society.
NOTE: Students who have received credit for LBCL 293 may not take this course for credit.

LBCL 298 ***Liberal Arts College Selected Topics*** (3 credits)

LBCL 299 ***Liberal Arts College Selected Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LBCL 391 ***Structure and Dynamics of Western Civilization II*** (6 credits)
Prerequisite: LBCL 291; LBCL 292; LBCL 294; or permission of the College. This course emphasizes the intellectual, cultural, and political traditions from the mid-seventeenth century to 1914. Texts studied are related to changing social and historical contexts. Primary texts may include Rousseau, *The Social Contract,* Wollstonecraft, *A Vindication of the Rights of Woman,* Marx, *Capital,* and Freud, *Dora.*

LBCL 393 ***Modes of Expression and Interpretation II*** (6 credits)
Prerequisite: LBCL 291; LBCL 292; LBCL 294; or permission of the College. A study of major Western literary, religious and philosophical traditions, involving the reading and interpretation of significant primary texts from the mid-seventeenth century to 1914. Emphasis is placed on further developments of writing skills and interpretive analysis. Primary texts may include Stendhal, *The Red and the Black,* Diderot, *Le neveu de Rameau,* Goethe, *Faust,* Nietzsche, *The Geneaology of Morals,* and Baudelaire, *Les fleurs du mal.*

LBCL 394 ***History of Art and Music II*** (3 credits)
Prerequisite: LBCL 291; LBCL 292; LBCL 294; or permission of the College. This course is an integrated study of the nature of the visual arts and music, from the seventeenth to the twentieth centuries. Artistic and musical expression is examined through chronological and thematic approaches, with attention to the relation between art, music, and society.
NOTE: Students who have received credit for LBCL 293 may not take this course for credit.

LBCL 398 ***Liberal Arts College Selected Topics*** (3 credits)

LBCL 399 ***Liberal Arts College Selected Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

LBCL 490 ***Integrative Seminar*** (6 credits)
Prerequisite: LBCL 391; LBCL 393; or permission of the College. This course emphasizes key issues in contemporary society and culture. Major twentieth-century texts and documents — philosophical, literary, political, and artistic, as well as analytical materials drawn from history and the social sciences, are read. Primary sources may include de Beauvoir, *The Second Sex,* Bell, *The Cultural Contradictions of Capitalism,* Woolf, *To the Lighthouse,* Levi, *Survival in Auschwitz.*
NOTE: With the permission of the College, students may take this course a second time for credit provided that the subject matter is different, and will register under LBCL 491.

LBCL 491 ***Integrative Seminar*** (6 credits)
Prerequisite: Permission of the College. Students who have received credit for LBCL 490 may register for LBCL 491 provided the subject matter is different.

LBCL 493 ***The Sciences and Society*** (3 credits)
Prerequisite: LBCL 291; LBCL 292; LBCL 294; or permission of the College. This course emphasizes the nature of modern science, principally through its development across the nineteenth and twentieth centuries. Primary sources may include Darwin, *Origin of the Species* and Kuhn, *The Structure of Scientific Revolutions.*
NOTE: Students who have received credit for LBCL 392 may not take this course for credit.

LBCL 497 ***Independent Research Tutorial*** (3 credits)
Prerequisite: LBCL 391; LBCL 393; LBCL 493; or permission of the College. Students, under the supervision of College faculty, write a major essay on a topic relating to their previous or concurrent work in the College.

LBCL 498 ***Liberal Arts College Advanced Topics*** (3 credits)

LBCL 499 ***Liberal Arts College Advanced Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.530 LONERGAN UNIVERSITY COLLEGE

Principal
WILLIAM P. BYERS, *Professor, Mathematics and Statistics*

Fellows
SHEILA ARNOPOULOS, *Lecturer, Journalism*
JOANNA BOTTENBERG, *Lecturer, Modern Languages and Linguistics*
PAMELA BRIGHT, *Associate Professor, Theological Studies*
WILLIAM BUXTON, *Professor, Communication Studies*
MOIRA CARLEY, *Lecturer, Lonergan University College*
JOHN P. DRYSDALE, *Associate Professor, Sociology*
EDMUND EGAN, *Associate Professor, Philosophy*
SHEILA McDONOUGH, *Professor, Religion*
LEONARD R. MENDELSOHN, *Associate Professor, English*
CHRISTOPHE POTWOROWSKI, *Associate Professor, Theological Studies*
ELIZABETH SACCÁ, *Professor, Art Education and Art Therapy*
FILIPPO SALVATORE, *Associate Professor, Modern Languages and Linguistics*

Associate Fellows
DAVID ELEY, s.j., *Director, Loyola Peace Institute*
MOHAMMAD MALIK, *Associate Professor, Mathematics and Statistics*
VIJAY RAJIVA, *Lecturer, Political Science*

Adjunct Fellows
ALLESSANDRO BIFFI, *Professor, Physics*
HAZEL MARKWELL, *Theological Studies*
WENDY SIMON, *Lecturer, Printmaking and Photography*

PhD Fellow
SAVITRI DE TOURREIL, *Religion*

Emeriti Fellows
MARK DOUGHTY, *Professor Emeritus, Chemistry*
WYNNE FRANCIS, *Professor Emeritus, English*

Location

Loyola Campus
7302 Sherbrooke Street West
(514) 848–2280

Objectives

The members of Lonergan University College seek to engage in interdisciplinary dialogue about fundamental questions of value in culture, art, science, and religion. The College is dedicated both to studying Bernard Lonergan's interdisciplinary approach and to fostering students' capacities for interdisciplinary dialogue.

As teachers and students of traditional disciplines in the University, members participate in a Fellows seminar, student seminars, and lectures at the College. Each year, a visiting scholar leads the College in studying the works of a selected thinker.

Dedication

Lonergan University College is named in honour of Dr. Bernard F. Lonergan, a former student, and later a professor at Loyola College, Montréal. Dr. Lonergan's work has been recognized throughout the world and is the subject of several hundred books and dissertations. Recently, an international *Journal of Lonergan Studies* has been initiated in the United States.

General Philosophy

Lonergan University College exists for those students and professors who believe in an education beyond the current tradition of depersonalized and compartmentalized knowledge. Lonergan students maintain a regular department-based programme of studies. At the same time, however, they share with others the dynamics of human enquiry that transcends the narrowness of disciplinary methodologies.

Inquiry into "Value"

The Fellows of Lonergan University College are convinced that the deepest issues of life are implicitly involved in all the academic disciplines, and that both honesty and sanity demand that we attend to this fact and reflect upon it.

The subject matter chosen for the College Seminar (LUCC 399) serves as a focus for each year's

activity. There are no limits to the choice of a particular thinker except that he or she be considered as among the foremost in shaping Western civilization. In each choice, however, the scholarship is clearly concerned with values: they may be values centred on the question "should it be done?" as opposed to "can it be done?"; they may be values so entrenched in fundamental assumptions as to appear self-evident and beyond argument; or they may be values considered by some to be ultimate and beyond rational understanding. In each case, the value systems are exposed and critically analysed, allowing the individual to come to his or her own conclusions.

Method

The College has adopted an educational strategy which is interdisciplinary and empirical.

This strategy is interdisciplinary and multi-disciplinary because central and ultimate issues of human life are involved in all disciplines; yet many of these issues overlap the traditional boundaries of knowledge and must be analysed without the dominance of any one perspective.

This strategy is empirical in the sense that all knowing begins with enquiry about experience of the world and of ourselves as subjects. Resulting judgement of truth and value must be verified through a methodologically precise appeal to this experience. Following this strategy, Lonergan students use their departmental study as a resource to be shared and extended by working with students and Fellows from other Departments on a common intellectual project as determined by one of the Lonergan courses.

The work and method of Bernard Lonergan are studied by many of our students. His influence is reflected in the concept of education at the College whether or not students choose to study his work explicitly.

The Style of the College

Lonergan University College offers its students all the resources of Concordia University. Lonergan students take a regular degree programme in the Department of their choice on either of the two campuses of Concordia University. Moreover, the College aims to contribute to a style of life which will heighten intellectual experience and enrich personal growth during the student's university years. It does this, not by claiming to "raise standards", but rather by demanding that its students relate what they learn to their personal lives and deeper values.

A university is the place where the universe should be discussed and intellectually appropriated. Conversation, as much as courses or research, is at the heart of university life. It is precisely this aspect of university life that has been undermined in this century by the incredible growth in knowledge itself, and by the proliferation of specialities. What universal knowledge is now possible? What do students have in common to discuss?

Lonergan University College believes that there is something in common to be discussed, and dedicates its resources to assure the depth and vitality of that discussion. It involves all its members, both students and Fellows, in structured conversation that will grow in breadth and meaning through the three years of a student's university career.

Membership

Membership in Lonergan University College will be granted for 12 credits from LUCC courses. Students may join the College with an intention to register for a LUCC course, and after an interview with the College principal. Membership entitles students to use the College lounges, resource centre, to participate in the social and intellectual activities of the College, and to be a member of the Lonergan University College Student Association.

Students must meet the degree requirements of the Faculty of Arts and Science, and must be enrolled in either a departmental or interdisciplinary Major, Specialization or Honours programme. Students who complete the membership requirements will be graduated officially as Lonergan students and will have this fact noted on their transcripts.

Programme

24 Minor in Lonergan Interdisciplinary Studies

Those students who are members of Lonergan University College, and who want to strengthen the academic component of their work in the College, may take the following academic minor:

6 LUCC 200[6] The Creative Experience of Understanding
12 LUCC 399[6] Lonergan College Seminar: the theme of the Lonergan College Seminar changes yearly. The seminar must be taken twice at six credits each time for a total of 12 credits
3 LUCC 410[3] Introduction to the Works of Bernard Lonergan
3 LUCC 440[3] The Interdisciplinary Experience

NOTE: Lonergan Special Topics Courses (298, 398, 498, and 499) may be substituted for the above requirements when relevant and with permission of the principal. No more than six credits may be substituted.

College Facilities and Activities

The College is governed by a set of by-laws, and by a College Council composed of students and Fellows.

The central activity of the College is its weekly seminar. The seminar focuses each year on the work of a major thinker, one who has decisively influenced our culture for good or for evil. The topic will change each year, but the depth of human integration and social awareness of the authors we choose ensures continuity in our discussion. As participants in the seminar are competent in diverse academic disciplines, an understanding of the topic develops which on the one hand does justice to the diversity of contemporary awareness, and on the other demands levels of understanding which transcend technical jargon. An internationally recognized scholar will be invited to come to Lonergan University College as the "Distinguished Visiting Scholar", to lead the College seminar. The Visiting Scholar will also give university lectures and public addresses, as deemed appropriate.

Each student of Lonergan University College joins with a small number of others to form a seminar group. College Fellows will direct the group and be available for academic advising to students. These groups will meet for two hours every week.

Students and Fellows will be encouraged to share in College government, to participate in College events, and, in various ways, to make the College the centre of their lives at the University.

The College offers a comfortable lounge, a specialized library, and several quiet rooms for study. It also has a research centre for Lonergan studies with a complete set of manuscripts, and of published works.

Admissions and Applications

Students seeking admission to the College should fill in the appropriate section (Box D) of the University Admissions Application form. Interested students may also contact the College directly by telephoning, or by coming to the College, or else by writing to the College at the following address: 7141 Sherbrooke Street West, Montréal, Québec, H4B 1R6. Each candidate for admission will be invited to an interview with the principal.

Courses

LUCC 200 ***The Creative Experience of Understanding*** (6 credits)

This course deals with questions such as how ideas develop, what it means to understand, and how human knowing is creative. Once aware of the creative process in their own thinking, students are helped to recognize its presence in the diverse kinds of thinking represented in such major thinkers as studied in the Lonergan University College interdisciplinary seminar (LUCC 399).

LUCC 298 ***Introduction to Selected Interdisciplinary Problems*** (3 credits)

LUCC 299 ***Introduction to Selected Interdisciplinary Topics*** (6 credits)

Specific topics for these courses will be stated in the Undergraduate Class Schedule.

LUCC 398 ***Special College Seminar*** (3 credits)

Students who for good reason cannot follow the regular College Seminar (LUCC 399) meet every second week for two semesters or every week for one semester, under the direction of a College Fellow. The same text is read as in the regular seminar, and the discussion has the same aim.

LUCC 399 ***Lonergan College Seminar*** (6 credits)

A different work is selected by the College Council each year from among those classics which have shaped our civilization. In the past the following were selected: Bernard Lonergan, Carl Jung, Northrop Frye, Niccolo Machiavelli, Teresa of Avila, Charles Darwin, Sigmund Freud, Nietzsche, and Dostoyevsky. The seminar meets each week through two semesters, to read segments of the work in appropriate intellectual contexts, and to move eventually to a personal, value-oriented dialectic with the work. One week students and Fellows discuss with the Visiting Scholar; the following week students meet in small groups with individual Fellows to deepen and broaden discussion.

LUCC 410 ***Introduction to the Works of Bernard Lonergan*** (3 credits)

A selection of Lonergan's works is read and discussed.

LUCC 440 ***The Interdisciplinary Experience*** (3 credits)

This course is cross-listed with INTE 440.

This course engages students in the task of integrating their University discipline into the more general enterprise of human knowing and deciding, and attempts to objectify this experience with the aid of a basic study of Lonergan's integrative methodology. The texts are selected from the works of Bernard Lonergan and other comparable theorists.

NOTE: Students who have received credit for LUCC 400 or INTE 400 may not take this course for credit.

LUCC 498 ***Lonergan University College Selected Problems*** (3 credits)

LUCC 499 ***Lonergan University College Selected Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.540 SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS

Principal
MARGUERITE MENDELL, *Associate Professor, School of Community and Public Affairs*

Vice-Principal
DANIEL SALÉE, *Associate Professor, School of Community and Public Affairs*

Fellows
WILLIAM BUXTON, *Associate Professor, Communication Studies*
HAROLD CHORNEY, *Associate Professor, Political Science*
LINDSAY CRYSLER, *Associate Professor and Director, Journalism*
DANIELLE GAUVREAU, *Assistant Professor, Sociology*
ANDREW B. GOLLNER, *Associate Professor, Political Science*
HUBERT GUINDON, *Professor, Sociology*
GUY LACHAPELLE, *Associate Professor, Political Science*
KARI LEVITT, *Professor Emeritus, Economics, McGill University*
CHANTAL MAILLÉ, *Associate Professor and Acting Principal, Simone de Beauvoir Institute*
MICHAEL MASON, *Associate Professor, History*
ALAN NASH, *Associate Professor, Geography*
LORNA ROTH, *Lecturer, Communication Studies*
FILIPPO SALVATORE, *Associate Professor, Modern Languages and Linguistics*
KIM SAWCHUK, *Assistant Professor, Communication Studies*
JOYA SEN, *Associate Professor, Management*
NORD SOVIK, *Assistant Professor, Management*
JOHN ZACHARIAS, *Associate Professor and Director, Urban Studies*

Associate Fellows
MARVIN HERSHORN, *Lecturer, Political Science*
JOSHUA WOLFE, *Lecturer, Urban Studies*

Location

Sir George Williams Campus
Annex CI, Room: 101
(514) 848-2575

Objectives

The School of Community and Public Affairs (SCPA) offers a multidisciplinary programme in public policy analysis. The School prepares its graduates to be knowledgeable participants in the policy-making process in the private, public, and community sectors.

An innovative combination of academic and practical training exposes students to a wide range of public issues. In small classes encouraging participation, students develop specialized abilities to do research, to communicate, and to organize public consultations and debates. An internship programme also enables students to gain the necessary experience of working in a public affairs job.

The School will be of interest to excellent students in a variety of disciplines, including economics, history, political science, sociology, urban studies, journalism, communication studies, and business. While some of our students enter the work force upon completion of their undergraduate degree, the majority continue their education. SCPA graduates tend to do graduate work either in their disciplines or, more often, in professionally-oriented programmes including Public or Business Administration, International Affairs, Industrial Relations, and Law.

The historic Mackay Street building which the School occupies is an ideal site for small classes, public lectures, social events, and meetings. School facilities include a common room, a reading room and documentation centre, a seminar room, a computer room, and faculty and student offices.

Programme

Students who enrol in the School of Community and Public Affairs will follow a programme composed of the following elements:

1. The Core Courses (36 credits)
All students must take the following:

ECON 201	Introduction to Microeconomics (3 credits)	**HIST 205**	History of Canada, Post-Confederation (3 credits)
ECON 203	Introduction to Macroeconomics (3 credits)	**POLI 250**	Canadian Government and Politics (6 credits)

SOCI 203	Introduction to Society (3 credits)	**SCPA 401**	Modular Seminar (3 credits)
SCPA 300	Integrative Seminar (6 credits)	**SCPA 411**	Internship (3 credits)
		SCPA 412	Research Seminar (3 credits)

3 credits — Chosen from SCPA 498[3], COMS 461[3], FRAN 312[3], MATH 207[3] (or equivalent), SOCI 353[3], MANA 266[3]

NOTE: Students who take one or more of the required courses as part of their degree programme must replace the credits with a course chosen in consultation with the SCPA adviser. Under special circumstances, a student may replace one of the elective courses with a course chosen in consultation with the SCPA adviser.

2. The Disciplinary Programme
Members of the School of Community and Public Affairs must also pursue a departmental or interdisciplinary Honours, Specialization, or Major programme.

Performance Requirement and Exemptions Policy
Students are required to maintain an average of "B-" in the core courses of the School and an overall average of "C". In addition, all members of the School are expected to participate in its operation.
Where exemptions are granted for any of the Core courses, students are required to replace them with an equal number of credits chosen in consultation with the SCPA adviser.

Entrance Requirements
Students admitted to the University and seeking to enter the School must have achieved a "B" average, or the equivalent at the previous educational level. Students wishing to enter the School will be interviewed personally. In exceptional circumstances, a candidate who has failed to meet the grade requirement will be admitted on the basis of a personal evaluation of potential capacities, as against those realized in previous studies. Each student enrolled in the School will have to demonstrate a working knowledge of English and French.
For further information on curriculum, programmes, personnel, and objectives, please call the principal at 848-2575.

Courses

SCPA 298 ***Selected Topics in Community and Public Affairs*** (3 credits)

SCPA 299 ***Selected Topics in Community and Public Affairs*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SCPA 300 ***Integrative Seminar*** (6 credits)
Prerequisite: Permission of the School of Community and Public Affairs. This course takes a multidisciplinary approach to the problems of decision-making and policy formulation, with particular attention paid to the complex interaction among groups and institutions in society. The course is designed to provide insights into the design, implementation, and evaluation of policies. Special emphasis is placed on data and information analysis and communication skills. Topics covered include the state and public policy; business, government and society; labour and unions; non-profit and community groups; interest groups and policy agendas; media and society; international institutions.

SCPA 398 ***Special Area Study in Community and Public Affairs*** (3 credits)

SCPA 399 ***Selected Topics in Community and Public Affairs*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SCPA 401 ***Modular Seminar*** (3 credits)
Prerequisite: SCPA 300 and permission of the School of Community and Public Affairs. This seminar is normally taken by students in their second year. Under the direction of a Fellow, the seminar consists of a series of "modules" of approximately three weeks' duration. The modules are both skill and problem oriented and draw on the expertise of both academics and practising professionals drawn from public and private agencies. Topics vary from term to term, but focus on specific functions and areas in public affairs in order to equip students with a range of skills needed to pursue careers in the field.

SCPA 411 ***Internship*** (3 credits)
Prerequisite: Permission of the School of

Community and Public Affairs. An essential part of the School's programme is a one-semester apprenticeship in some aspect of community and public affairs. After completing 60 credits of the BA programme, including a significant portion of the School's core, students are required to complete a practicum that will allow them to test their ideas in a real situation. Placements may be drawn from all areas of possible employment, including the private sector, government and community service organizations. Students are expected to participate fully in finding and defining possible internships. Employers are asked to join in an evaluation of the work period. Students are required to submit a written report which summarizes and evaluates their work experience.

SCPA 412 ***Research Seminar*** (3 credits)
Prerequisite: SCPA 411. Students who have completed their internship are required to define a set of problems, normally based on some aspect of their practical experience. They then define a policy agenda on which further research is undertaken. Working in groups, they organize a series of seminars relating to the policy agenda. These seminars are presented by academics and practising professionals and are open to all members of the School. In unusual circumstances, SCPA 412 may be taken concurrently with SCPA 411 with permission of the School.

SCPA 498 ***Advanced Seminar in Community and Public Affairs*** (3 credits)

SCPA 499 ***Advanced Topics in Community and Public Affairs*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.550 SCIENCE COLLEGE

Principal
GEZA SZAMOSI

Fellows
PAUL J. ALBERT, *Associate Professor, Biology*
PETER H. BIRD, *Professor, Chemistry and Biochemistry*
JOHN CAPOBIANCO, *Associate Professor, Chemistry and Biochemistry*
DAVID CHEEKE, *Professor, Physics*
CLAIRE G. CUPPLES, *Assistant Professor, Biology*
NELSON W. EDDY, *Associate Professor and Chair, Physics*
LUC-ALAIN GIRALDEAU, *University Research Fellow, Biology*
RICHARD L. HALL, *Professor, Mathematics and Statistics*
DAVID JACK, *Assistant Professor, Chemistry and Biochemistry*
CALVIN S. KALMAN, *Professor, Physics*
HERSHY KISILEVSKY, *Professor, Mathematics and Statistics*
STEPHEN KUMARAPELI, *Professor, Geology*
CLEMENT LAM, *Professor, Computer Science*
EDWARD J. MALY, *Professor, Biology*
SHEILA MASON, *Associate Professor, Philosophy*
JOHN McKAY, *Professor, Computer Science*
ELAINE B. NEWMAN, *Professor, Biology (Founding Principal)*
ROBERT M. ROY, *Associate Professor, Biology*
RAMESH C. SHARMA, *Associate Professor, Physics*
PETER SHIZGAL, *Professor, Psychology*
JANE STEWART, *Professor, Psychology*
REGINALD STORMS, *Associate Professor, Biology*
MANFRED SZABO, *Professor, Mathematics and Statistics*
MICHAEL von GRUNAU, *Associate Professor, Psychology*

Location

Sir George Williams Campus
Annex X, Room: 105
(514) 848-2595

Objectives

The aim of the Science College is to prepare students enrolled in one of Concordia's science programmes for a life of research, teaching, or some similarly demanding intellectual pursuit in a profession. The academic programme of the College complements the regular undergraduate curriculum and includes cross-disciplinary courses and student participation in laboratory research activities from the first year on. The collegial atmosphere fosters interaction among students and between students and faculty.

In Science College, students will gain an understanding of several areas of science, while specializing in whichever one they choose. Curricular structures frequently restrict students to a single discipline. To help counteract excessive specialization, the Science College has designed a series of courses to show what practising physicists think about physics; what mathematicians do when they are thinking mathematics: — not "an introduction to", but "the state of the art".

The College provides an opportunity for students to become acquainted with science as practised and understood by scientists today. Its curriculum is planned to fulfil the primary goals of the College — to provide an opportunity for experience in a research environment, for thinking about the nature of science, and for becoming aware of the style and content of the various scientific disciplines.

In Science College, students have the opportunity to work individually with active research scientists. This is done through a programme of directed or independent study in each undergraduate year which enables them to undertake or participate in projects of discovery in a variety of different areas of scientific endeavour.

Students of the College will also be provided with an opportunity to consider the nature of science. The College offers courses in the intellectual and social context of science. Designed specifically for College students, these courses raise questions of broad interest to scientists and presume an understanding of the subject matter of science itself.

Students will also be given the opportunity to consider the social and cultural framework of their science studies through a basic course in some aspect of humanistic studies. This will bring them into intellectual contact with students in our fellow College of Liberal Arts.

Finally, students will be encouraged to appreciate the link between clarity of thought and clarity of expression, through the availability of tutorial assistance in the development of writing skills.

Facilities
The College has study and lounge areas, computer facilities, a small library, and a collection of periodicals of general interest. The College offers students the opportunity and facilities to discuss matters of interest among themselves and with their professors. Science College also offers a number of courses and invites scientists to visit the University to meet College students.

Requirements for Admission to Science College
The programme of Science College is academically demanding, involving concentration in one discipline and a critical investigation of other aspects of science. The College is committed to serious academic work and high standards, and seeks to attract talented and enthusiastic students who are willing to work hard in a search for a deeper understanding of their subject.
Science College represents a new departure at Concordia's downtown campus. Students must enrol in a science programme that leads to a BSc degree in order to be part of Science College. Students registered for a BA in Journalism are also eligible, as are students registered in the General Science Option of Computer Science.
In addition to the normal requirements for admission to the University's various programmes, applicants are expected to have a good academic average. They will be considered on the basis of their academic record, and a personal interview. Preference will be given to students who show a disposition and an aptitude to profit from the unique features of the sort of fundamental scientific education which the College offers. Applicants are encouraged to provide evidence of the range of their intellectual interests and of any creative activity in which they may have been involved. Students must be prepared to attend courses at times outside the normal University schedule. The College is open to full-time students only.

Science College and Journalism
A limited number of students who have been admitted to the Major in Journalism programme may be allowed to register in the Science College, with a view to combining a basic understanding of science with a training in journalism. For such students, a second six-credit course in the historical, philosophical, and social aspects of science will be offered. Other members of the College will have the option of taking this course if they so desire.

Performance Requirement
Students in the College must maintain a "B" average in courses offered by the College, with no grade lower than a "C".

Further Information
Further information on the courses and activities of the Science College may be obtained either by writing or by telephoning the College office. Personal interviews with a fellow of the Science College may be arranged through the Science College office.

Science College Core Curriculum
The College offers a core of courses which is required of all students. This core consists of 30 of the 90 credits normally required for a BSc degree. These courses have been developed specifically for the College with the intention of providing a unique, integrated programme of education in science.

Programmes

In addition to completing the core curriculum, students are responsible for satisfying their particular degree requirements by completing a departmental Honours, Specialization, or Major programme leading to a BSc.
The superscript indicates credit value.

30 Science College Curriculum

3-9 Chosen from SCOL 251[3], 252[3], 253[3], 351[3], 352[3], 353[3]
6 SCOL 270[6]
6 Chosen from LBCL 291[6], 292[6]
6 SCOL 290[3], 390[3]
6 SCOL 490[6]
3-9 SCOL 398[3*]

**This course may be repeated twice for credit in this programme provided the subject matter is different.*

Courses

SCOL 251 ***Current Issues in Physical Sciences I*** (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. These courses are designed to help students understand the "state of the art" in fields of science in which they are not specializing. They discuss problems under current study, and attempt to identify possible future directions of research. The approach is qualitative. Detailed technical knowledge is not prerequisite.

SCOL 252 ***Current Issues in Biological Sciences I*** (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. For description see SCOL 251 above.

SCOL 253 ***Current Issues in Mathematical and Related Sciences I*** (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. For description see SCOL 251 above.

SCOL 270 ***Historical, Philosophical, and Social Aspects of Science*** (6 credits)
Prerequisite: Membership in the Science College, or permission of the College. This course discusses the intellectual framework of science and the relationships between science and society, and the political and philosophical questions inherent in the scientific process. This course is primarily intended for College students and relies heavily on primary sources. Students are expected to understand the scientific issues at the level at which they were originally addressed.

SCOL 290 ***Directed and Independent Study I*** (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. The student works under the supervision of a member of the Faculty on either a practical laboratory project or a literature study. A formal, written report is required.

SCOL 298 ***Selected Topics in a Scientific Discipline*** (3 credits)

SCOL 299 ***Selected Topics in a Scientific Discipline*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SCOL 351 ***Current Issues in Physical Sciences II*** (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. For description see SCOL 251 above.

SCOL 352 ***Current Issues in Biological Sciences II*** (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. For description see SCOL 251 above.

SCOL 353 ***Current Issues in Mathematical and Related Sciences II*** (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. For description see SCOL 251 above.

SCOL 390 ***Directed and Independent Study II*** (3 credits)
Prerequisite: Membership in the Science College, or permission of the College. A student who has completed SCOL 290 registers for SCOL 390. Students are encouraged to work in a field different from that of their SCOL 290 project.

SCOL 398 ***Topics for Multidisciplinary Study*** (3 credits)
The purpose of this course is to introduce students to problems and areas of study which transcend traditional disciplinary barriers. A chosen area of investigation is treated from the viewpoint of various disciplines. Lecturers from different areas may be used for this purpose. The aim is to show the contributions made by each field to the understanding of the problem, and how they complement each other.

SCOL 399 ***Topics for Multidisciplinary Study*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

SCOL 490 ***Directed and Independent Study III*** (6 credits)
Prerequisite: Membership in the Science College, or permission of the College. A student who has completed SCOL 390 registers for SCOL 490. Students are encouraged to work in a field different from that of their SCOL 290 and 390 projects. Students complete a research project approved in advance by the College, under the supervision of a fellow of the College and/or a faculty member in a scientific discipline.
NOTE: After consultation with the Science College, a student may register in BIOL 490, CHEM 450, GEOL 414, or PSYC 430 and upon successful completion be exempted from SCOL 490.

SCOL 498 ***Advanced Topics*** (3 credits)

SCOL 499 ***Advanced Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

31.560 SIMONE DE BEAUVOIR INSTITUTE AND WOMEN'S STUDIES

Interim Principal
CHANTAL MAILLÉ, *Associate Professor, Women's Studies*

Associate Professor
LUCIE LEQUIN, *Women's Studies and Études françaises*

Assistant Professor
KAARINA KAILO, *Women's Studies*

Fellows
KAILASH ANAND, *Associate Professor, Mathematics and Statistics*
ELIZABETH HENRIK, *Associate Professor, Psychology*
E. SUSAN HOECKER-DRYSDALE, *Associate Professor, Sociology*
CATHERINE MAVRIKAKIS, *Assistant Professor, Études françaises*
DANIEL SALÉE, *Vice-Principal, School of Community and Public Affairs*
ROSEMARIE SCHADE, *Assistant Professor, History*
MARGARET SHAW, *Assistant Professor, Sociology*
KATHERINE E. WATERS, *Associate Professor, English*

Research Associates, Independent Scholars
ANNA ANTONOPOULOS, *Simone de Beauvoir*
AÏDA BOUDJIKANIAN, *Armenian Women in Montréal*
MIRIAM COOLEY, *Feminist Pedagogy in Visual Art Education*
YAËL GLÜCK, *Towards a Female-Centred Theory of Emotions*
NILIMA MANDAL-GIRI, *South Asian Professional Women in Montréal*
CONSTANCE McLEESE, *Feminist Theology: Feminist Exegesis of Biblical Canon*
BARBARA MEADOWCROFT, *Montréal Women Painters*
RAE TAYLOR, *Contemporary Native Women's Literature*

Adjunct Fellows/Independent Scholars
SIMA APRAHAMIAN, *Gender Identities and the Transformation in Armenia*
ROKSANA BAHRAMITASH, *The Role of Women in Economic Development*
LAUREL BALDWIN, *Health Determinants and Domestic Violence; Boundary Issues in the Doctor/Patient Relationship*
COLLEEN ELLIOTT, *Assistant Professor, Geology*
PATRICE LECLERC, *Assistant Professor, Sociology and Anthropology*
JUDITH LONGACRE, *Popular Culture and Single-sex vs. Co-educational Environments*
MARGUERITE MENDELL, *Principal, School of Community and Public Affairs*
SHAHRZAD MOJAB, *Assistant Professor, Applied Social Science*
MONICA MULRENNAN, *Assistant Professor, Geography*
DIANA PEDERSEN, *Assistant Professor, History*
CHENGIAH RAGAVEN, *Women and Genocide*
SONIA ZYLBERBERG, *Feminist Judaism: Biblical Women*

Honorary Fellows
PATRICIA MORLEY, *Professor Emeritus of English*
JO VELLACOTT, *SSHRC Research Fellow, History, Peace Studies*

Location

Sir George Williams Campus
Annex MU, Room: 202
(514) 848-2370

Objectives

The Institute strives to stimulate the investigation and understanding of the role of women in society and to encourage women to develop their creative potential. In research and teaching, special attention is given to gender, race, class, and sexual orientation.
The Institute has several objectives: to investigate the history, current situation, and changing needs of women; to generate support for research topics relevant to women; to encourage full recognition of women's contribution to human achievement; to ensure that women and gender issues are studied in a non-discriminatory manner; to strengthen women's rights and the conditions for exercising them; to ensure the equality of all individuals without distinction of race, sex, age, language, or religion.
Women's Studies encompass and modify all areas of knowledge. Through the introduction of new perspectives and new research, this field of study helps to correct and complete the traditional scholarly record. It is in essence interdisciplinary and multidisciplinary since the specificity of the condition of women embraces all existing disciplines. It thus questions the concept and structures of knowledge contained within the disciplinary boundaries and contributes to bringing about a reunification of the knowledge and scholarship that has become increasingly fragmented.

SIMONE DE BEAUVOIR INSTITUTE

Founded in 1978 to promote the understanding of the historical and contemporary situation of women in society, the Simone de Beauvoir Institute of Concordia University helps women to discover and develop their potential, both by its academic base in Women's Studies and by its co-curricular activities. We are honoured that Simone de Beauvoir authorized us to use her name, and expressed great interest in being informed of our activities.

All students registered in the Major, Minor, or Certificate in Women's Studies are members of the Institute. Other undergraduate students are welcome to become members if they undertake to complete nine credits of WSDB courses. The choice of these courses must be approved in advance by the principal or her delegate.

The co-curricular life of the Institute is extremely important, and all members are expected to contribute to our activities. Exciting opportunities are available to organize workshops, colloquia, and debates on subjects which interest the members, as well as to collaborate with women's organizations outside the University on research projects and other joint ventures.

Admission Requirements for the Simone de Beauvoir Institute

Students may apply simultaneously to Concordia University and the Simone de Beauvoir Institute by filling out and submitting the Concordia University Application for Admission with the box for "colleges" checked and "Simone de Beauvoir Institute" written in the space provided. The Admissions Application Centre will inform us of your application as soon as they receive it. Further information about the Institute can be obtained by calling us or by visiting our offices.

Programmes

Students are responsible for satisfying their particular degree requirements. The superscript indicates credit value.

Students should consult with the Women's Studies adviser prior to registering for Women's Studies courses.

60 BA Specialization in Women's Studies

Group I

9 WSDB 290[3], 291[3], 292[3]
6 WSDB 380[3], 480[3]
12 WSDB 381[3], 382[3], 383[3], 390[3], 391[3], 392[3]
12 WSDB 490[3], 491[3], 496[6]
3 WSDB at the 400 level

Group II

18 Chosen in consultation with the Women's Studies adviser from WSDB 298[3], 398[3], 498[3]; APSS 353[3]; CLAS 261[3], 354[3], 355[3]; COMS 368[3]; ECON 397[3]; EDUC 321[3]; ENGL 248[6], 381[3], 382[6]; FRAN 254[3], 255[3], 256[3], 451[3], 476[3], 477[3]; HIST 329[3], 331[3], 478[3]; PHIL 252[3]; POLI 275[3], 334[6]; PSYC 390[6]; and all Women and Religion courses; SOCI 272[6], 276[6], 374[3]; ANTH 308[3]; THEO 270[3]; and from the Faculty of Fine Arts: FFAR 320[6], 420[6]; FMST 329[3], 409[3]

NOTE: Students are admitted based on a letter of intent to be evaluated by the Women's Studies Undergraduate Committee. Students are expected to maintain an overall WGPA of 3.0.

42 BA Major in Women's Studies

Group I

9 WSDB 290[3], 291[3], 292[3]
6 WSDB 380[3], 480[3]
6 Chosen from WSDB 390[3], 391[3], 392[3]
3 Chosen from WSDB 490[3], 491[3]

Group II

18 Chosen in consultation with the Women's Studies adviser from List A

30 Minor in Women's Studies

Group I

9 WSDB 290[3], 291[3], 292[3]
6 WSDB 380[3], 480[3]
6 Chosen from WSDB 390[3], 391[3], 392[3]
3 Chosen from WSDB 490[3], 491[3]

Group II

6 Chosen in consultation with the Women's Studies adviser from List A

30 Certificate in Women's Studies

Group I

9 WSDB 290[3], 291[3], 292[3]
6 WSDB 380[3], 480[3]
6 Chosen from WSDB 390[3], 391[3], 392[3]
3 Chosen from WSDB 490[3], 491[3]

Group II

6 Chosen in consultation with the Women's Studies adviser from List A

Students may transfer into the Certificate programme up to 12 credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

LIST A
WSDB 298[3], 381[3], 382[3], 383[3], 398[3], 498[3]; APSS 353[3]; CLAS 261[3], 354[3], 355[3]; COMS 368[3]; ECON 397[3]; EDUC 321[3]; ENGL 248[6], 381[3], 382[6]; FRAN 254[3], 255[3], 256[3], 451[3], 476[3], 477[3]; HIST 329[3], 331[3], 478[3]; PHIL 252[3]; POLI 275[3], 334[6]; PSYC 390[6]; RELI all courses under *Women and Religion*; SOCI 276[6], 378[6], 474[3]; ANTH 276[6]; SPAN 430[3]; THEO 270[3]; FFAR 320[6], 420[6]; FMST 329[3], 409[3]

NOTE: Students should consult the appropriate Departments concerning possible prerequisites for the courses in List A.

NOTE: WSDB 290 and 291 are also offered in French. For additional information, please consult the Undergraduate Class Schedule.

Language/Langue
Les règlements actuels permettent à toute étudiante et tout étudiant d'écrire ses devoirs ou examens en anglais ou en français dans tous les cours offerts, à l'exception des cours de langue. La langue d'enseignement sera normalement l'anglais.
Non-francophone students may equally submit assignments in English in Français 451, 476, and 477, as long as they are taking the course for credit in Women's Studies or as an elective, and not as part of a programme of the Département d'études françaises.

Courses

NOTE: Please consult §200.1 for a list of equivalent courses.

WSDB 290 ***Introduction to Women's Studies I*** (3 credits)
This course provides an introduction to the lives and conditions of women in historical contexts. It is suited both to those interested in women's issues in general and students enrolled in Women's Studies. Topics range from lesbianism, motherhood, violence, racism, and family to women's economic status, and women's resistance.

WSDB 291 ***Introduction to Women's Studies II*** (3 credits)
This course looks at the lives and conditions of women in recent times; it explores systems of domination and women's resistance to them. It investigates how women have empowered themselves within these systems and have struggled for, and achieved, change. Topics may include women's organizations, socialization, education, language, economic and political structures.

WSDB 292 ***Feminisms and Research Methods*** (3 credits)
Prerequisite: Enrolment in a Women's Studies programme or permission of the Institute. This course exposes students to a variety of research practices such as: oral history, case studies, multi-media representation, survey/ content analysis, library research, and field work. It encourages students to think critically, and to improve their ability to gather, analyse, and effectively present ideas and information.

WSDB 298 ***Selected Topics in Women's Studies*** (3 credits)
Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

WSDB 370 ***Workshops in Special Areas of Women's Studies*** (3 credits)
Prerequisite: WSDB 290; WSDB 291. The purpose of these workshops is to examine a number of topics and problems related to the field of Women's Studies. The issues considered may differ from year to year; several workshops are offered over one academic year and students are required to select two workshops of one and a half credits each or three workshops of one credit each from the package. The workshop format is designed to allow Women's Studies students to participate in learning opportunities with flexibility in scheduling as well as to benefit from the experience of experts who visit Montréal on a short term basis. Possible topics are women and biotechnology; education of immigrant women, women and continuing education; women and pressure groups.

WSDB 380 ***Feminist Thought I*** (3 credits)
Prerequisite: 18 credits, including WSDB 290, 291, and 292, and nine credits from other WSDB or elective courses. This course seeks to deconstruct the ideological premises of knowledge-production and provides an overview of various modes of knowledge, theory, and activism among women in different cultural contexts. These types of knowledge range from storytelling to academic theorizing. The course provides key concepts and critical approaches for Feminist Thought II.
NOTE: Students who have received credit for WSDB 394 may not take this course for credit.

WSDB 381 ***First Nations' Women*** (3 credits)
Prerequisite: 18 credits, including WSDB 290, 291, and 292, and nine credits from other WSDB or elective courses. This course aims to acquaint students with North American First Nations, particularly the women's contemporary realities. Other pedagogical objectives are to facilitate an understanding of cultural perception; to develop a critical viewpoint of ethnocentrism in mainstream society; to introduce the current debate around minority

representation, cultural appropriation, and post-colonial theory.
NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 382 ***Science, Technology and Women's Lives*** (3 credits)
Prerequisite: 18 credits, including WSDB 290, 291, and 292, and nine credits from other WSDB or elective courses. This course explores both historical trends and contempo-rary concerns regarding women, science, and technology. It investigates: stereotypes of science and scientists; western science vs. native knowledge; science as a social activity and as a career choice for women; and the effects of science and technology on women's lives.
NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 383 ***Lesbian Issues and Realities*** (3 credits)
Prerequisite: 18 credits, including WSDB 290, 291, 292, and nine credits from other WSDB or elective courses. This course introduces students to the field of lesbian studies and examines lesbian existence within a historical as well as a contemporary context. A central theme of the course is diversity among lesbians, not only in terms of race, class, ability but also in terms of political consciousness.
NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 390 ***Women and Peace*** (3 credits)
Prerequisite: 18 credits, including WSDB 290, 291, and 292, and nine credits from other WSDB or elective courses. This course covers a series of themes related to feminist peace politics such as violence, wars against women, militarism, roles played by women during wars, war mythologies, women in the military, the war industry and the new world order, feminist peace activism.

WSDB 391 ***Health Issues: Feminist Perspectives*** (3 credits)
Prerequisite: 18 credits, including WSDB 290, 291, and 292, and nine credits from other WSDB or elective courses. This course examines women's health issues in both a historical and a contemporary light. Topics analysed range from the treatment of women within the health care system to the social constructs of illness and the diversity of healing practices.

WSDB 392 ***Féminismes dans la francophonie*** (3 crédits)
Préalable: 18 crédits, dont WSDB 290, 291, et 292, plus 9 autres crédits en WSDB ou cours électifs. A partir de textes théoriques et d'ouvrages traitant de la vie quotidienne, ce cours examine les similitudes, les analogies et les traits distinctifs des luttes des femmes durant les deux dernières décennies, ici et ailleurs dans la francophonie, notamment les luttes des Arabes, des Antillaises ou des femmes d'Afrique noire.

WSDB 398 ***Selected Topics in Women's Studies*** (3 credits)

WSDB 399 ***Selected Topics in Women's Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

WSDB 480 ***Feminist Thought II*** (3 credits)
Prerequisite: 30 credits, which must include WSDB 380 and nine other WSDB credits. This course uses the critical approaches studied in Feminist Thought I to explore the changes that have taken place in women's expression and interpretation of modes of knowledge and theory. The course focuses on the relationship between oppressive systems and the ways different women's groups have resisted them.
NOTE: Students who have received credit for WSDB 394 may not take this course for credit.

WSDB 490 ***Advanced Seminar in Women's Studies*** (3 credits)
Prerequisite: 30 credits, which must include WSDB 380 and nine other WSDB credits. This interdisciplinary seminar considers the effect of systems of gender, race, and class on women's place in society. It takes into account recent developments in feminist scholarship in the humanities and social sciences.

WSDB 491 ***Advanced Seminar in Women's Studies*** (3 credits)
Prerequisite: 30 credits, which must include WSDB 380 and nine other WSDB credits. This interdisciplinary seminar explores women's visions of the future and draws on historical and contemporary materials, both creative and scientific.

WSDB 496 ***Directed Research*** (6 credits)
Prerequisite: Enrollment in the Specialization in Women's Studies; 30 credits, including WSDB 290, 291, 292, 380, 480, and permission of instructor. Students work with an individual faculty member in a particular area of Women's Studies. Students are expected to produce a substantial research project.

WSDB 498 ***Seminar in Women's Studies*** (3 credits)

WSDB 499 ***Seminar in Women's Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, will be stated in the Undergraduate Class Schedule.

faculty of commerce and administration

61.10 *COMMERCE AND ADMINISTRATION*

61.20 *ADMISSION REQUIREMENTS*

61.21 *UNDERGRADUATE DEGREE PROGRAMMES*
- 61.21.1 The Bachelor of/Baccalaureate in Commerce
- 61.21.2 The Bachelor of/Baccalaureate in Administration

61.22 *THE CREDIT CORE*
- 61.22.1 Academic Performance Regulations

61.30 *GENERAL INFORMATION*

61.35 *FACULTY OF COMMERCE AND ADMINISTRATION COURSES*

61.40 *ACCOUNTANCY*

61.50 *DECISION SCIENCES AND MANAGEMENT INFORMATION SYSTEMS*

61.60 *ECONOMICS*

61.70 *FINANCE*

61.80 *INTERNATIONAL BUSINESS*

61.90 *MANAGEMENT*

61.100 *MARKETING*

61.110 *TRANSPORTATION AND DISTRIBUTION MANAGEMENT*

61.120 *ADMINISTRATION*

61.130 *BUSINESS COMMUNICATIONS*

61.140 *BUSINESS STUDIES*

61.150 *COMPUTER SCIENCE*

61.160 *SPECIAL CERTIFICATE PROGRAMMES*

61.170 *SPECIAL PROGRAMMES IN ACCOUNTANCY*

section 61

61.10 FACULTY OF COMMERCE AND ADMINISTRATION

Faculty	*Dean* MOHSEN ANVARI	JERRY A. ROSENBLATT, *Administrative Affairs and Human Resources* FARHAD SIMYAR, *External Affairs and Executive Programmes* JERRY TOMBERLIN, *Graduate Programmes, Research and Programme Evaluation*
	Associate Deans DANIELLE MORIN, *Academic and Student Affairs – Undergraduate Programmes*	
Location	*Sir George Williams Campus* Annex GM, Room: 403 (514) 848-2700	
Objectives	The Faculty of Commerce and Administration is engaged in the education of students for business life. The Faculty's overall aim is to provide students with a liberal, well-rounded business education and to accomplish this the Faculty features an intellectually challenging curriculum which is both multidisciplinary and interdisciplinary. In addition to its undergraduate programmes, the Faculty of Commerce and Administration offers a comprehensive range of graduate programmes which includes: PhD, MBA, Executive MBA, Aviation MBA, MSc in Administration, Diploma in Accountancy, Diploma in Institutional Administration, and Diploma in Sports Administration.	

61.20 ADMISSION REQUIREMENTS

General admission requirements are listed in §13.

a) CEGEP profile*:
Mathematics 201-103, 201-105
Economics 383-920, 383-921
Computer Literacy

b) Non-CEGEP profile*:

Non-CEGEP requirements	Concordia Courses
Calculus I	MATH 209
Linear Algebra	MATH 208
Micro, Macro Economics	ECON 201, 203
Computer Literacy	INTE 290/COMP 201

**NOTE: Equivalencies will be determined at the point of acceptance.*
NOTE: Arrangements will be made in the first-year programme to allow any accepted student the opportunity to complete any of the required prerequisite courses.

CEGEP Entrance — the 90-credit programme
The prerequisites for the 90-credit BComm or BAdmin degree are indicated in a) above.
Students with a DEC will complete the 90-credit programme. Any student lacking one or more of the prerequisite courses can take them within the 90-credit programme and those courses will count as elective credits.

Mature Entry — the 108-credit programme
In addition to the 90-credit programme, mature entry students must take an additional 18 credits which include:
6 credits in MATH 208, 209
12 elective credits appropriate for the student's intended programme.
If necessary, the 12 credits may include courses from b) above excluding the MATH courses.

Extended Credit Programme — the 120-credit programme
In addition to the 90-credit programme, students in the Extended Credit Programme will be required to complete the following additional 30 credits:

6 credits in MATH 208, 209
6 credits in an English composition course (e.g. ENGL 212, 213)
18 additional elective* credits.

**These elective credits must be selected from outside the offerings of the Faculty of Commerce and Administration, that is from the Faculties of Arts and Science, Engineering and Computer Science or Fine Arts. If necessary, the 18 credits may include the required courses from b) above, excluding the MATH courses.*

NOTE: Because of the extensive use of computers in various programmes, students are advised to have access to a personal computer.

61.21 Undergraduate Degree Programmes

The Faculty of Commerce and Administration offers two distinct undergraduate programmes. The Bachelor of/Baccalaureate in Commerce (BComm) is a structured programme in which the student will select a Major from those offered in Commerce or Economics. The Bachelor of/Baccalaureate in Administration (BAdmin) is a flexible programme which permits the student to pursue interests outside the Faculty, and offers the possibility of complementing a fundamental grounding in Administration with Minor concentrations in an area of interest. Degree requirements listed below apply to all students entering the programme on or after June 1, 1996.

61.21.1 The Bachelor of/ Baccalaureate in Commerce

This programme involves education in all aspects of business with emphasis on one particular area. The first year introduces students to operational skills, attitudes, and the necessary functional tools. The second year blends theory and practice to prepare students to analyze, formulate, evaluate, and resolve business challenges. The last year allows students to specialize in the area of their choice.

Degree Requirements:

42 credits from the core
12 restricted elective credits outside the Faculty
24–30 credits to apply towards the Major
6–12 elective credits chosen by the student

NOTES:

1. *All students are required to declare a Major.*
2. *There are no Double Majors or Double Minors in the Faculty of Commerce and Administration. The Faculty may impose quotas on some Majors.*
3. *A listing of the restricted elective credits will be available in the Associate Dean's Office in the Guy Metro Building.*

61.21.2 The Bachelor of/ Baccalaureate in Administration

The aim of the BAdmin is to develop capable problem-solvers and decision-makers. The programme provides students with a fundamental grounding in administration and offers them the opportunity to pursue a wide range of interest amongst the various courses offered by the University.

Degree Requirements:

42 credits from the core
18 credits from within the Faculty of Commerce and Administration and/or its disciplines
30 elective credits chosen by the student, but outside the Faculty of Commerce and Administration, 15 of these must be beyond the introductory level.

NOTE: For both the BComm and the BAdmin, students may take up to a maximum of six credits in ESL courses.

61.22 The Credit Core

The Faculty of Commerce and Administration has revised its programme effective September 1996. Students accepted into the Faculty of Commerce and Administration prior to September 1996, must adhere to the *Undergraduate Calendar* of the year of their acceptance into the programme. Students who wish to discuss any adjustments to their programme based on the new changes, may consult the academic adviser.

NOTE: Students are responsible for following the correct sequence of courses required for the completion of a particular programme.

The required 42-credit core is identical for both programmes and comprises the following courses:

1st Year
Semester 1
COMM 210 Contemporary Business Thinking
COMM 212 Business Communication
COMM 215 Business Statistics
COMM 217 Financial Accounting
Semester 2
COMM 220 Markets
COMM 222 Organizational Behaviour and Theory
COMM 224 Marketing Management
COMM 225 Production and Operations Management

2nd Year
Semester 1
COMM 301 Management Information Systems
COMM 305 Managerial Accounting
COMM 308 Finance
Semester 2
COMM 310 Strategy and Competition
COMM 315 Business Law and Ethics

3rd Year
COMM 410 Entrepreneurship

CONCORDIA FACULTY OF COMMERCE AND ADMINISTRATION

BComm	*Major*	*Minor*	*Certificate*
Accountancy	X	X	
Business Studies		X[1]	X[1]
* Economics	X		
Finance	X	X	
International Business	X	X	
Management			
Administrative Management	X	X	
Human Resource Management	X		
Personnel Management		X	
Entrepreneurship and Small Business		X	
Managerial Law		X	
Industrial Relations	X		
Marketing	X	X	
Marketing Research		X[1]	X[1]
Decision Sciences and Management Information Systems			
Decision Sciences			
Production/Operations Management Option	X	X	
Operations Research Option	X	X	
Business Statistics Option	X	X	
Management Information Systems	X	X	
Transportation and Distribution Management		X	

Students will indicate their preferred field of concentration at the time of application for entry. It should be noted, however, that since the programme of study of the first year is common to all programmes, students may change to another programme provided, of course, that the capacity of the programme permits it.

[1] *This programme is not open to students registered in a programme leading to the undergraduate degree of Commerce or Administration.*

Students may transfer into the Certificate programme up to 12 credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Students of this Faculty who elect to major in any of the disciplines of the Department or Economics will be enrolled in a BComm degree programme.

* *Students may follow an Honours in Economics, but they must obtain approval from the Arts and Science Faculty (Department of Economics).*

61.22.1 Academic Performance Regulations

NOTE: The GPA regulations apply to all students, including those with Visiting status, registered in programmes offered by the Faculty of Commerce and Administration. This also includes the Minor in Business Studies and Certificate programmes.

The objectives of these regulations are:

a) to ensure that the Faculty can certify that all of its graduates are qualified to enter their profession;

b) to ensure that students can, with the assistance or intervention of the Faculty, assess themselves objectively, and plan programmes of study designed to meet their individual needs.

Annual Weighted Grade Point Average (WGPA)*
Requirements and Consequences
*See §16.3.10, II for definition of Annual WGPA.

Acceptable standing requires that a student obtain an Annual WGPA of at least 2.00.
NOTE: Although a "C-" grade (1.70 grade points) is designated as Satisfactory in §16.3.3, a WGPA of 2.00 is required for acceptable standing.
Students in acceptable standing may proceed subject to the following conditions: any failed grade must be cleared by repeating the failed course or in the case of an elective, by replacing the failed course by an alternative within the same group of electives. Any variation must be approved by the Dean's Office.

Conditional standing results when a student obtains an Annual WGPA of less than 2.00, but at least 1.50. A student is not permitted to obtain two consecutive conditional standing assessments.
Students in conditional standing may not write supplemental examinations but may proceed subject to the following conditions:
a) they must receive academic counselling from the appropriate member of the Dean's Office;
b) they must repeat successfully all courses in which failing grades were obtained, or replace them by alternatives approved by the Dean's Office in consultation with the student's Department;
c) in no case will the number of credits exceed 15 per term for full-time students and six per term for part-time students;
d) they must obtain acceptable standing at the time of their next assessment.

Failed standing results when a student obtains an Annual WGPA of less than 1.50, or conditional standing in two consecutive periods of assessment.
Failed students may not write supplemental examinations.
Failed students are required to withdraw from their programme. Students who are in failed standing for a second time will be dismissed from the University. In subsequent years, should they wish to return to university studies, they must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.
Failed students who are not dismissed may apply for readmission through the Dean's Office of the Faculty to which they wish to be readmitted. If readmitted, they will be placed on academic probation. They must return to acceptable standing at the time of their next assessment. Other conditions will be determined at the time of readmission.

Graduation Requirements
Students must satisfy all course requirements and be in acceptable standing.
The standings of potential graduates who have attempted less than 12 credits since their last assessment are determined on the basis that these credits constitute an extension of the last assessment period.
Students who fail to meet acceptable standing but meet conditional standing will have the following options:
a) register for 12 credits and meet the criteria for acceptable standing;
b) register for fewer than 12 credits. In this case, standing will be determined on the basis that these credits constitute an extension of the last assessment period.
In both cases a) and b), courses taken must be approved by the appropriate member of the Dean's Office in consultation with the student's Department where necessary. Normally, these courses will be selected from the offerings of the Faculty of Commerce and Administration or Department of Economics.

NOTE: Dean's Office is to be understood as being the appropriate member of the Dean's Office, normally the Associate Dean, Student Affairs, or delegate.

61.30 GENERAL INFORMATION

Failures
Students are cautioned that a failure in a first-term course will prohibit them from proceeding to a second-term course for which the first is a prerequisite. Students who find themselves in this position must drop the second-term course and register in a section of the failed course, if available.
There will be a course-change period at the beginning of the second term, at which time students falling in the above category must make arrangements for the necessary course changes.

NOTE: THERE ARE NO SUPPLEMENTAL EXAMINATIONS IN THE FACULTY OF COMMERCE AND ADMINISTRATION.

French Language
The business community, as well as governments, now express a preference for university graduates who are bilingual. We, therefore, advise all students to take advantage of the opportunities available during their years at this University to ensure that they are bilingual when they present themselves for employment upon graduation.

Courses/Non-Commerce Students
Students not enrolled in the Faculty of Commerce and Administration programme may register for six credits per term for a maximum of 30 credits (total) within the Faculty of Commerce and Administration. Students not registered in the Faculty of Commerce and Administration, who wish to undertake any courses offered by the Faculty, but do not have the stated prerequisites, must obtain permission in writing from the Student Request Committee, Faculty of Commerce and Administration *prior to registration.*

61.35 FACULTY OF COMMERCE AND ADMINISTRATION COURSES

The following core courses provide a format in which topics of faculty-wide interest are considered:

Courses

COMM 210 ***Contemporary Business Thinking*** (3 credits)
Prerequisite: COMM 212 previously or concurrently; ECON 201 or 203 or equivalent previously or concurrently. This course exposes students to an in-depth reading of several contemporary business books. It aims to incite students to develop a critical perspective on business literature. Students are also encouraged to explore popular and influential business writing; expose and evaluate the central ideas for scope, relevance, and managerial utility.
NOTE: It is recommended that part-time students complete this course, along with COMM 212,as early in their programme as possible.

COMM 212 ***Business Communication*** (3 credits)
Prerequisite: COMM 201 or equivalent. This course focuses on the principles and techniques of clear, concise, and effective, written and oral communication, especially as they apply to business. The formal, grammatical, and stylistic elements of written and oral business communication are emphasized. In addition, students are instructed in and experience the use of audiovisual means of communication.
NOTE: It is recommended that part-time students complete this course, along with COMM 210, as early in their programme as possible.
NOTE: Students who have received credit for BUSC 300 may not take this course for credit.

COMM 215 ***Business Statistics*** (3 credits)
Prerequisite: MATH 208 or equivalent; MATH 209 or equivalent; COMM 201 or equivalent previously or concurrently. This course introduces the fundamentals of statistics as applied to the various areas of business and administration. Topics covered include techniques of descriptive statistics, basic theory of probability and probability distributions, estimation and hypotheses testing, chi-square tests in contingency table analysis and for goodness-of-fit, and simple linear regression and correlation.
NOTE: Students who have received credit for DESC 243 may not take this course for credit.

COMM 217 ***Financial Accounting*** (3 credits)
Prerequisite: COMM 210 previously or concurrently. This course examines the theory and practice involved in measuring, reporting, and analysing an organisation's financial information. Concepts underlying financial statements are discussed, with an emphasis on generally accepted accounting principles. Disclosures/requirements concerning financial statements as well as information needs of decision-makers are introduced.
NOTE: Students who have received credit for ACCO 213 may not take this course for credit.

COMM 220 ***Markets*** (3 credits)
Prerequisite: ECON 201 or 203 or equivalent; COMM 210, 215. This course provides a general perspective on the history, operation and interrelationships between Canadian and international products, labour and financial markets. Specifically, students will be introduced to issues of fundamental importance to today's managers and entrepreneurs such as changes in structure and competitiveness in these markets in response to government policies, the determination and behaviour of interest rates, inflation, market integration, and the role and function of financial intermediation. It further provides students with the knowledge of the role and impact of regulation and other government interventions in these markets.

COMM 222 ***Organizational Behaviour and Theory*** (3 credits)
Prerequisite: COMM 210, 212. This course is

designed to provide students with an opportunity to study individual behaviour in formal organizations. Through theoretical case and experiential approaches, the focus of instruction progressively moves through individual, group and organizational levels of analysis. Topics in the course include perception, learning, personality, motivation, leadership, group behaviour, and organizational goals and structure.
NOTE: Students who have received credit for MANA 340 may not take this course for credit.

COMM 224 ***Marketing Management*** (3 credits)
Prerequisite: COMM 210; COMM 212 previously or concurrently. This course is an introduction to the managerial concepts and practices of marketing from the perspective of an organization and its products and services. The process of developing a marketing strategy and all of the components thereof is examined along with their interrelationships. Readings and cases are used to help students apply these concepts to realistic marketing problems in a host of business settings, including small business and international environments.
NOTE: Students who have received credit for MARK 213 and 350 may not take this course for credit.

COMM 225 ***Production and Operations Management*** (3 credits)
Prerequisite: COMM 210, 212; COMM 215 previously or concurrently. This course is an introduction to contemporary operational issues and techniques in the manufacturing and service sectors. Among the topics covered are: operations strategy, forecasting, materials' management, total quality management, time-based competition, and minimal manufacturing. Mathematical modelling in resource allocation is also introduced. Cases and computer-aided quantitative tools for decision-making are used throughout the course with an emphasis on the interactions between production/operations management and other business disciplines.
NOTE: Students who have received credit for DESC 250 may not take this course for credit.

COMM 301 ***Management Information Systems*** (3 credits)
Prerequisite: COMM 217, 222, 224, 225. The objective of this course is to provide students with an understanding of the role of computer-based information systems in business organizations and the analytical skills required to work with management information systems. This course will also help to equip students with the ability to apply information technologies to a variety of business problems.
NOTE: Students who have received credit for DESC 222 may not take this course for credit.

COMM 305 ***Managerial Accounting*** (3 credits)
Prerequisite: COMM 217; COMM 222, 225 previously or concurrently. This course covers the development of accounting information to assist management in carrying out its functions effectively and efficiently. Concepts and techniques for planning, performance evaluation, control, and decision-making are introduced. New developments are addressed with a focus on contemporary business issues and real-world applicability of management accounting concepts and techniques.
NOTE: Students who have received credit for ACCO 218 may not take this course for credit.

COMM 308 ***Finance*** (3 credits)
Prerequisite: COMM 217, 220. This course provides a general understanding of the fundamental concepts of finance theory as they apply to the firm's long-run short-run financing and investment decisions. Building on the objective of firm value maximization, students will become familiar with the conceptual issues underlying risk and return relationships and their measurements, as well as the valuation of financial securities. They will also learn the concept of cost of capital, its measurement, and the techniques of capital budgeting as practised by today's managers. Students will be introduced to the basic issues surrounding the firm's short- and long-term funding decisions and its ability to pay dividends. Management of the firm's accounts receivable and accounts payable, and the level of working capital are also presented.
Note: Students who have received credit for FINA 214 and 315 may not take this course for credit.

COMM 310 ***Strategy and Competition*** (3 credits)
Prerequisite: COMM 210, 301, 305, 308. This course introduces the concepts of strategic management and competitive analysis. Emphasis is given to integrating concepts and ideas from the major functional areas such as marketing and finance to give a global perspective on decision-making and directing modern business enterprises. Lecture topics and case studies are selected to portray the nature of the strategic process and the dynamics of competition in a variety of contexts. Attention is also given to the issues of social responsibility, ethics, and personal values. In this context, we also examine the connection between organizational strategy and the physical environment. Finally, cases and assignments which require an analysis of organizational improvement strategies and new organizational structures are selected.
NOTE: Students who have received credit for MANA 460 may not take this course for credit.

COMM 315 ***Business Law and Ethics*** (3 credits)
Prerequisite: COMM 308. This course will allow students to develop a degree of familiarity with the important ethical and legal aspects of

business and to become more aware of and comfortable with resolving ethical and legal components of their decision-making and with distinguishing right from wrong business behaviour.
NOTE: Students who have received credit for MANA 475 may not take this course for credit.

COMM 410 ***Entrepreneurship*** (3 credits)
Prerequisite: COMM 310. This capstone course requires graduating students to demonstrate their ability to integrate the knowledge and skills they have acquired during their Commerce programme. Course emphasis will be on the entrepreneurial aspects of management that are required to create, develop, and sustain either a new business venture or a major project/initiative within an existing organization. The integrative nature of the course will require an understanding of each functional area of business. Students will have the opportunity to demonstrate the teamwork, leadership, communication, and the other skills stressed throughout the programme.

COMM 499 ***Seminar Course*** (3 credits)
Prerequisite: To be determined each academic term. This course will enable students, on an individual basis, to further focus on a specialized topic within their discipline.

61.40 ACCOUNTANCY

Faculty

Associate Professor and Chair of the Department
MOHAMED E. IBRAHIM

Professors
C. DEREK ACLAND
ROBERT ALLAN LONG
FARHAD SIMYAR

Professor Emeritus
LAWRENCE BESSNER

Associate Professors
IBRAHIM M. ALY
G. ROBERT CURNEW
HENRY J. DAUDERIS
CHARLES DRAIMIN
KELLY F. GHEYARA
GEORGE K. KANAAN
MANMOHAN RAI KAPOOR
JEONG B. KIM
E. BRIAN MARKLAND
FRANK L. SBROCCHI
JUAN J. SEGOVIA

Assistant Professors
JANE CRAIGHEAD
AMAL EL-SABBAGH
BURYUNG LEE
GEORGE LOWENFELD
HEMA RAO
DANIEL SZPIRO
HUSSEIN WARSAME

Lecturers
PATRICK DELANEY
GAIL FAYERMAN
EMILIO B. IMBRIGLIO
ELEANOR MOSS-WERBIN
SANDRA M. ROBINSON
WENDY NADINE ROSCOE
ALEXANDER VASIL

Location

Sir George Williams Campus
Annex GM, Room: 600-13
(514) 848-2759

Department Objectives

The Department of Accountancy is dedicated to providing leadership in accounting education through a strong commitment to excellence in teaching and leadership in the discovery and dissemination of accounting knowledge. It acts as a bridge between the University and business, government, and professional accounting as they relate to various facets of accountancy at the undergraduate and graduate levels.
The Department continuously strives to provide leadership and scholarship that are recognized provincially, nationally, and internationally by offering unique, creative, innovative, and "lifetime-learning" opportunities. The Department is responsive to its diverse constituencies and both nourishes and preserves an equitable, just, and non-discriminatory environment.

Programmes

30 Major in Accountancy
3 ACCO 303
3 ACCO 323
3 ACCO 326
3 ACCO 335
3 ACCO 429
3 ACCO 441
3 ACCO 461
9 additional credits offered by the Department

12 Minor in Accountancy
3 ACCO 323
3 ACCO 326
6 additional credits offered by the Department

Accountancy Co-operative Programme

Director
SANDRA M. ROBINSON, *Lecturer*
(514) 848-2748

The Accountancy Co-operative programme is offered to students who are enrolled in the BComm programme and are majoring in Accountancy. Students interested in applying for the Accountancy co-op should refer to §24 where a full description of the admission requirements is provided. Academic content is identical to that of the regular programme, but six Study terms are interspersed with four Work terms.

ACCO 213 ***Introductory Financial Accounting*** (3 credits)
This course examines the theory and practice involved in recording and reporting an organization's financial information. Concepts of asset valuation and income measurement are discussed with respect to both large and small enterprises. Professional and legal requirements concerning financial statement disclosure are introduced and the needs of decision-makers requiring financial information are considered. *NOTE A/See §200.2*

ACCO 217 ***Financial and Managerial*** (3 credits)
Prerequisite: ACCO 213. This course is designed to develop, through verbal analysis of business cases, an understanding and skill in the preparation of statements for financial accounting purposes, taking into account the needs of business management. The student must be able to analyse these statements and comment critically thereon.
NOTE A/See §200.2
NOTE: Major and Honours students in Accountancy may not take this course for credit.

ACCO 218 ***Introductory Managerial Accounting*** (3 credits)
Prerequisite: ACCO 213 or COMM 217. This course examines the development of accounting information for the purposes of planning, control, decision-making, and, in general, for the more efficient operation of enterprises, large and small. *NOTE A/See §200.2*

ACCO 220 ***An Accounting Approach to Management*** (3 credits)
This course is designed to cover certain major aspects of management related to the accounting process. These include: business organization; accounting concepts; financial statement analysis; management uses of accounting information; and the effect of taxation on business decisions.
NOTE A/See §200.2
NOTE: Commerce and Administration students may not take this course for credit.

ACCO 221 ***Accounting and Management*** (3 credits)
Prerequisite: ACCO 220. This course is sequential to ACCO 220 and examines in greater depth the areas covered in that course.
NOTE A/See §200.2
NOTE: Commerce and Administration students may not take this course for credit.

ACCO 303 ***Cost and Management Accounting*** (3 credits)
Prerequisite: ACCO 218 or COMM 305. In this course a detailed examination is made of the various techniques, systems, and procedures applicable to the managerial use of accounting information for decision-making, profit-planning, and control. *NOTE A/See §200.2*

ACCO 323 ***Intermediate Accounting I*** (3 credits)
Prerequisite: ACCO 213 or COMM 217; FINA 214 or COMM 308. This course extends the material covered in the earlier financial accounting course, integrating the previous work with more advanced theory and application. Intensive study is made of the theory and practice of external reporting by commercial entities. Concepts and procedures involved in the valuation of resources are studied, as are the concepts of income determination. *NOTE A/See §200.2*

ACCO 326 ***Intermediate Accounting II*** (3 credits)
Prerequisite: ACCO 323. This course continues the intensive study of Intermediate Accounting I, with particular emphasis on accounting for liabilities, shareholders' equity, and other related areas such as earnings per share, pension accounting, and accounting for income tax.

ACCO 335 ***Advanced Accounting*** (3 credits)
Prerequisite: ACCO 326. This advanced course is concerned primarily with intercorporate investments and combinations. A study is also made of other accounting areas including foreign currency translation.
NOTE A/See §200.2

ACCO 407 ***Accounting Practice and Policy*** (3 credits)
Prerequisite: ACCO 335, 429. Areas previously or concurrently covered in the field of corporate financial reporting are extended, and current accounting literature and pronouncements of professional accounting bodies are examined. Extensive use is made of the case method of instruction. *NOTE A/See §200.2*
NOTE: This course will be offered in the second term only.

ACCO 410 ***Specialized Accounting*** (3 credits)
Prerequisite: ACCO 326. In this course an examination is made of specialized aspects of accounting for not-for-profit organizations such as municipal governments, colleges, and hospitals. The course focuses on both the financial and managerial applications of accounting principles and theory.

ACCO 414 ***Accounting Information Systems*** (3 credits)
Prerequisite: ACCO 218 or COMM 305. This course examines the systems for collecting and processing information necessary in planning, decision-making, and the control of business organizations. Theory and practice are combined in a case-study approach which includes "hands-on" computer experience with spreadsheet and database programmes.
NOTE A/See §200.2
NOTE: Introductory-level knowledge of computer systems is recommended.

ACCO 422 ***Advanced Management Accounting*** (3 credits)
Prerequisite: ACCO 303. This course continues at an advanced level the study of modern cost and managerial systems using cases, readings, and problems. Coverage includes a critical evaluation of accounting control systems, related quantitative business controls, and conceptual and measurement problems in evaluating performance. *NOTE A/See §200.2*

ACCO 429 ***Auditing Concepts*** (3 credits)
Prerequisite: ACCO 323. This course introduces auditing theory and its application by external and internal auditors in fulfilling their respective objectives and responsibilities. The focus is on the audit function and the role and purpose of different types of auditors. Fundamental concepts in auditing are discussed in terms of current practices and standards. *NOTE A/See §200.2*

ACCO 432 ***Financial Auditing*** (3 credits)
Prerequisite: ACCO 326, 429. This course emphasizes the role of the public accountant in expressing an opinion on the financial statements of an organization. The use of audit standards, procedures, and internal control is related to the expression of an auditor's opinion. Cases and problem-solving form the basis of student involvement in this course.
NOTE A/See §200.2

ACCO 433 ***Auditing and Investigation*** (3 credits)
Prerequisite: ACCO 429. This course deals with questions related to professional accounting practices and also covers different types of management services that auditors are frequently requested to undertake. *NOTE A/See §200.2*

ACCO 441 ***Taxation I*** (3 credits)
Prerequisite: ACCO 213 or COMM 217. This course examines the federal taxation structure, including the taxation of employment, business, and property income and capital gains. While emphasizing the income taxes levied on individuals, the course also examines the taxation of corporations. *NOTE A/See §200.2*

ACCO 442 ***Taxation II*** (3 credits)
Prerequisite: ACCO 441. This course extends the coverage of ACCO 441 with an examination of specialized topics in personal and corporate income tax, including a detailed review of the taxation of corporations, and tax planning including the tax effects of various theoretical and practical business combinations.
NOTE A/See §200.2

ACCO 451 ***Computer Auditing*** (3 credits)
Prerequisite: COMP 211 or equivalent; ACCO 429. This course explores the impact of large-scale computer use on auditors and their examination of a company's records and systems of internal control. The emphasis is on helping auditors understand when a computer can be used to assist them and how to follow through with its use. Topics covered include the different controls and techniques required in a computer system, the audit trail, approaches to computer auditing and computer application for auditing, computer and software security, and consideration of the various computerized audit packages available. *NOTE A/See §200.2*

ACCO 461 ***Accounting Theory I*** (3 credits)
Prerequisite: ACCO 335 previously or concurrently. This course examines the framework underlying current accounting thinking and procedures. A study is made of the development and the influence of professional accounting organizations and regulatory bodies on accounting theory. Controversial areas are emphasized. *NOTE A/See §200.2*

ACCO 462 ***Accounting Theory II*** (3 credits)
Prerequisite: ACCO 461. This course extends the coverage of ACCO 461. Particular emphasis is placed on developments in the current literature and in problem areas facing the accounting profession.

ACCO 468 ***(also listed as IBUS 470) International Accounting*** (3 credits)
Prerequisite: MARK 462 or IBUS 462; ACCO 218 or COMM 305; FINA 315 or COMM 308. This course examines accounting practices employed by different countries; accounting and financial control of international operations, and various consolidation procedures and their effect on the interpretation of financial statements are discussed.
NOTE: This course will be offered in the second term only.
NOTE: Students who have received credit for IBUS 470 may not take this course for credit.

ACCO 470 ***Special Topics in Accounting*** (3 credits)
Prerequisite: Written permission of the Department. Intended to complement and supplement accounting courses taken previously or concurrently at the senior level, this course emphasizes accounting literature and modern thought. Students are encouraged to work independently on research topics of interest to them. Enrolment is restricted and is subject to departmental approval. *NOTE A/See §200.2*
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

ACCO 471 ***Accounting Seminar*** (3 credits)
Prerequisite: ACCO 470. This course examines in greater depth areas of individual interest. Enrolment is restricted and is subject to departmental approval. Students repeating ACCO 471 register for credits under ACCO 472 provided the subject matter is different.
NOTE A/See §200.2
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

61.50 DECISION SCIENCES AND MANAGEMENT INFORMATION SYSTEMS

Faculty

Professor and Chair of the Department
SURESH KUMAR GOYAL

Professors
TAK KWAN MAK
AHMET SATIR

Associate Professors
CLARENCE BAYNE
JEAN-MARIE BOURJOLLY
MERAL BÜYÜKKURT
DALE DOREEN
JAMSHID ETEZADI-AMOLI
MOHAMED KHALIFA
DENNIS KIRA
MARTIN I. KUSY
DANIELLE MORIN
FASSIL NEBEBE
THEMIS POLITOF
JERRY TOMBERLIN

Assistant Professors
DEBORAH BALLOU
MOHAMED EL LOUADI
MOHAN GOPALAKRISHNAN
MAHESH SHARMA

Lecturers
BORIS BARAN
GERALDINE KORDA

Location

Sir George Williams Campus
Annex GM, Room: 209-9
(514) 848-2980

Department Objectives

The Department of Decision Sciences and Management Information Systems strives to equip its students with an integrated set of decision-making skills.
The Decision Sciences Major aims to develop expertise in all important aspects of managerial statistics, operations research, and production/operations management. It prepares graduates for careers that require skills in the collection and analysis of relevant data for decision-making with respect to the effective and efficient management of human resources, capital and time.
The Management Information Systems Major aims to develop expertise in all important aspects of the development, use, and management of information systems. It prepares graduates for careers in information systems analysis and design, database design and administration, as well as management of information technology.

Programmes

A student in any Major or Minor programme in Decision Sciences and Management Information Systems is required to take DESC 222 in addition to the courses which are listed for the programme.

Students majoring in Decision Sciences and Management Information Systems are strongly encouraged to take DESC 250 at the earliest opportunity in their programme.

An Option in Information Systems is offered by the Department of Computer Science. Details are available in the Engineering and Computer Science section (§71.80) of the Undergraduate Calendar.
The Department of Decision Sciences and Management Information Systems offers two Majors — a Major in Decision Sciences with three options and a Major in Management Information Systems. Within these two Majors there is a listing of Common Courses totalling 12 credits. These must be taken by all students majoring in Decision Sciences or Management Information Systems. They are as follows:

12 Common Courses: DESC 350[3], DESC 378[3], DESC 381[3], DESC 382[3]

27 Major in Decision Sciences Production/ Operations Management Option
12 DESC 350, 378, 381, 382
12 DESC 355, 451, 452, 492
3 DESC 361, 362, 462, 466, 477, 490; MANA 345

12 Minor in Production/Operations Management
9 DESC 350, 355, 451
3 DESC 452, 490, 492

27 Major in Decision Sciences Operations Research Option
12 DESC 350, 378, 381, 382
9 DESC 361, 362, 492
6 DESC 451, 462, 464, 466, 477, 490

12 Minor in Operations Research
9 DESC 350, 361, 362
3 DESC 462, 464, 466, 490, 492

30 Major in Decision Sciences Business Statistics Option

15 DESC 244, 350, 378, 381, 382
6 DESC 375, 477
3 DESC 371, 478
6 DESC 361, 371, 451, 464, 478, 481, 482, 483, 490, 492; MATH 351, 454

12 Minor in Business Statistics

9 DESC 375, 378, 477
3 DESC 371, 478

27 Major in Management Information Systems

12 DESC 350, 378, 381, 382
3 COMP 251
9 DESC 481, 482, 483
3 DESC 383, 485, 486, 492, 493

12 Minor in Management Information Systems

6 DESC 381, 382
6 DESC 481, 482, 483, 485, 486, 493

Decision Sciences and Management Information Systems Co-operative Programme

Director
MOHAMED EL LOUADI, *Assistant Professor*
(514) 848-2975

The Decision Sciences and Management Information Systems co-operative programme is offered to students who are enrolled in the BComm programme and are majoring in Management Information Systems. Students interested in applying for the Management Information Systems co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular programme, but six Study terms are interspersed with four Work terms.

Students are supervised personally and must meet the requirements specified by the Faculty of Commerce and Administration and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Management Information Systems co-op committee, which includes the student's advisers. Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

Courses

DESC 222 ***Introduction to Management Information Systems*** (3 credits)

Prerequisite: ACCO 213; MANA 266 previously or concurrently. The objective of this course is to introduce students to the principles of management information systems. Topics include hardware and software of various information technologies, information requirement analysis, systems design, different types of computer-based information systems, implementation of information systems, data management, and end-use computing. Moreover, students acquire skills necessary for solving small information-processing problems encountered in functional areas of business. *NOTE: See §200.2*

DESC 243 ***Introduction to Business Statistics and Decision Models*** (3 credits)

Prerequisite: MATH 208, MATH 209 previously or concurrently. (Students admitted from CEGEP with the 10.12 profile are eligible for direct entry into DESC 243.) The aim of this course is to introduce students to the fundamentals of probability and statistics as applied in the various areas of business and administration. Topics covered include univariate descriptive measures, probability theory (decision trees, conditional probability, Bayes theorem), probability distributions (binomial, Poisson, normal, and exponential), bivariate data and probability (scatter plots, covariance, correlation), sampling distribution, estimation and model-based simple regression. Students use statistical software packages on mainframe and/or microcomputers to solve applied problems. *NOTE See §200.7*

DESC 244 ***Introduction to Statistical Analysis for Business and Administration*** (3 credits)

Prerequisite: DESC 243 or COMM 215 or equivalent. This course introduces students to basic statistical methods in the context of applied data analysis in business and administration. Topics covered include hypothesis testing, analysis of variance, applications of chi-square statistic, nonparametric methods, quality control, regression and correlation analysis, time-series analysis, and forecasting techniques. Students use statistical software packages on mainframe and/or microcomputers to solve applied problems. *NOTE See §200.7*

DESC 250 ***Introduction to Production/ Operations Management*** (3 credits)

Prerequisite: COMM 210; 212; 215 or DESC 243 previously or concurrently. The objective of this course is to introduce students to analytical decision-making in the production/operations management context. The functional aspects of operations and the relationship of production/operations management to the other business functions are emphasized throughout the course. Linear programming, sensitivity analysis, aggregate planning, operations scheduling, inventory

control models, and project management are the subject areas emphasized within the context of manufacturing and service industries. *NOTE A/See §200.2*

DESC 350 ***Production/Operations Systems*** (3 credits)
Prerequisite: DESC 250 or COMM 225. This course discusses various operational planning and control problems in manufacturing and service systems. Among the subjects covered are forecasting, capacity planning, facility layout, waiting-line models, work design, quality assurance, and measurement of productivity. Issues in operations strategy are discussed with an emphasis on recent developments and trends in manufacturing and information technologies. *NOTE A/See §200.2*

DESC 355 ***Operations Logistics*** (3 credits)
Prerequisite: DESC 250 or COMM 225. This course develops concepts and understanding about planning and control of movement and storage activities of materials in business organizations. Various operational issues and cases in facility location, distribution systems, materials handling, warehouse operations, maintenance planning, and reliability are covered.

DESC 361 ***Linear Optimization*** (3 credits)
Prerequisite: DESC 250 or COMM 225. This course deals with advanced topics in linear optimization and implementation aspects of problem-solving in a business environment. Elements of linear modelling process and primal simplex algorithm are reviewed. Functional areas where linear optimization may be applied are discussed. Among the advanced topics covered are revised simplex algorithm, duality, dual simplex algorithm, parametric linear programming, the transportation problem, integer, and goal programming. Case studies are discussed to highlight the implementation aspects. *NOTE A/See §200.2*

DESC 362 ***Discrete Models in Business I*** (3 credits)
Prerequisite: DESC 250. This course introduces the student to the decision-making process through the use of discrete models having application to problems such as planning, distribution, scheduling, location, and resource allocation. Topics include the application of tree algorithms, path algorithms, network flow algorithms, and dynamic programming to modelling in a business environment. *NOTE A/See §200.2*

DESC 371 ***Business Decision Analysis*** (3 credits)
Prerequisite: DESC 244 or equivalent. This course introduces students to the basic ideas of decision analysis. Topics covered include elementary decision modelling, probability assessment, utility estimation, multiattribute problems, and complex decision problems. *NOTE A/See §200.2*

DESC 375 ***Business Sampling Techniques*** (3 credits)
Prerequisite: DESC 243 or COMM 215 or equivalent. This course deals with the design, execution, and analysis of sample surveys, including the necessary theory to carry out these tasks properly in the different areas of business and administration. Topics include simple random, stratified, cluster, two-stage, ratio and regression estimates, systematic sampling, and some aspects of survey design and management. Students, either individually or in small groups, are required to carry out or critique a survey. Ability in the use of statistical software packages on mainframe and/or microcomputers is desirable. *NOTE A/See §200.2*

DESC 378 ***Business Applications of Statistical Models*** (3 credits)
Prerequisite: DESC 222 or COMM 301; DESC 244 or COMM 215 or equivalent. This course is intended to give the student a strong foundation in data analysis using linear models, with emphasis on applications in business, administration, and economics. Topics include linear regression on one, two, and several explanatory variables; model-building techniques and forecasting models; analysis of variance and covariance; and elements of experimental design. Students, either individually or in small groups, are required to carry out a project. This is an applied course with a heavy emphasis on actual data analysis using statistical software packages on mainframe and/or microcomputers. *NOTE A/See §200.2*

DESC 381 ***Personal Computing in Business*** (3 credits)
Prerequisite: DESC 222 or COMM 301. This course has two objectives. First, students are exposed to common information-processing problems in the functional areas of business. Second, they learn how to use personal computers to solve these problems. In the process, students are introduced to a programming language, such as BASIC, and selected application development packages. *NOTE A/See §200.2*

DESC 382 ***Business Data Management*** (3 credits)
Prerequisite: DESC 222 or COMM 301. This course introduces students to the management of data in a corporate environment. Topics include data management, elementary data modelling, physical structures for representing business data, file organization, data dictionaries, file design, database administration, and issues in documentation. Use is made where feasible of professional data management software to illustrate course

concepts. *NOTE A/See §200.2*
NOTE: MIS Majors are strongly recommended to take COMP 251 either prior to or at the same time as this course.

DESC 383 ***Application Software Development*** (3 credits)
Prerequisite: DESC 222 or COMM 301; COMP 251. This course is divided into two parts. First, conventional methodologies utilized in the development of business application software is examined using the COBOL programming language. Topics of study include structured design, structured programming, and the management of software development. Second, the impact of new trends in the area, such as fourth-generation languages, end-user computing, and prototyping, on the traditional life-cycle development is examined.
NOTE A/See §200.2

DESC 451 ***Inventory Management*** (3 credits)
Prerequisite: DESC 250 or COMM 225. This course covers deterministic and stochastic inventory models. Dependent demand systems and in-process inventory models are dealt with. New trends in inventory control are discussed. The fundamental forecasting techniques are also reviewed. *NOTE A/See §200.2*

DESC 452 ***Computer Integrated Production/Operations Management*** (3 credits)
Prerequisite: DESC 350, DESC 355 or DESC 451. This course studies the recent developments and trends in manufacturing and information technologies and the impact of these on the planning and control aspects of production/operations management. Case studies are used to illustrate the implementation aspects of the subjects covered.

DESC 462 ***Discrete Models in Business II*** (3 credits)
Prerequisite: DESC 362 or permission of the Department. This course introduces students to further discrete models with an emphasis on integer-programming modelling and solution techniques. Topics covered are matching and covering algorithms, the Chinese postman and the travelling salesman problems, routing heuristics, and location models. Case studies are used to illustrate the modelling and the implementation aspects of the subjects covered.

DESC 464 ***Non-Linear Programming*** (3 credits)
Prerequisite: DESC 361 or equivalent. This course introduces some fundamental concepts in non-linear optimization. The topics covered include convexity, formulation of non-linear problems, identification of optimal points, unconstrained and constrained optimization techniques. Emphasis throughout the course is placed on business-related problems.
NOTE A/See §200.2

DESC 466 ***Decision Models in Service Sector*** (3 credits)
Prerequisite: DESC 350. The course surveys applications of decision models in the service sector. Efficiency and effectiveness issues in the service sector such as police deployment, municipal resource allocation, health care, and criminal justice models are covered. Case studies from Canada and other countries are discussed using operations research, operations management, and statistical techniques.
NOTE A/See §200.2

DESC 477 ***Statistical Forecasting*** (3 credits)
Prerequisite: DESC 244 or equivalent, DESC 222 or COMM 301. This course presents the foundations of applied time-series analysis for managerial forecasting. It includes forecasting methods and objectives, fundamental concepts in time-series analysis, models for seasonal time-series, models for nonstationary time-series, Box and Jenkins methods, forecast evaluation. This is an applied course with a heavy emphasis on actual data analysis using statistical computer packages on mainframe and/or microcomputers.
NOTE A/See §200.2

DESC 478 ***Business Applications of Multivariate Data Analysis*** (3 credits)
Prerequisite: DESC 244 or equivalent; DESC 222 or COMM 301. This course deals with analysis of data consisting of measurements of several variables on a sample of individuals. The emphasis is on the methods of multivariate statistical techniques as applied to research in business and administration. Topics include simultaneous regression models, multivariate analysis of variance, discriminant analysis, principal components, factor analysis, clustering and canonical correlations. Substantial use is made of statistical software packages on mainframe and/or microcomputers.

DESC 481 ***Information Systems Analysis*** (3 credits)
Prerequisite: DESC 381, DESC 382. (Computer Science students may take this course without the stipulated prerequisites, but with the permission of the DS & MIS Department.) This course covers the first phase of the systems development life cycle, which culminates in the systems proposal. Topics include the preliminary survey, analysis of existing systems and identification of deficiencies, the development of functional specifications, feasibility and cost/benefit analysis and development of a recommended course of action. In addition, various diagramming techniques are examined.
NOTE A/See §200.2

DESC 482 ***Information Systems Design*** (3 credits)
Prerequisite: DESC 381, DESC 382,

DESC 481. Methods and procedures for designing business information systems are discussed. Topics include data and process modelling, preparing screen and report layouts using data dictionaries and documentation within the design process. A comprehensive case study using current computer-aided technologies demonstrates various design concepts.
NOTE A/See §200.2
NOTE: To ensure proper succession in the thought process, students are strongly recommended to enrol in this course in the term immediately following the successful completion of DESC 481.

DESC 483 ***Management of Information Systems*** (3 credits)
Prerequisite: DESC 381, DESC 382. (Computer Science students may take this course without the stipulated prerequisites, but with the permission of the DS & MIS Department.) This course explores various topics related to management of information resources and services in the organization. First, the basic principles of information systems management are introduced. Topics include planning, control, development, and operations of information technology. Through the examination of several case studies, students are given the opportunity to acquire the necessary skills to identify, analyse, and communicate different issues surrounding these topics. *NOTE A/See §200.2*

DESC 485 ***RPGII Programming*** (3 credits)
Prerequisite: DESC 381, DESC 382; COMP 251. RPG is a programme generator-type language intended for use in business applications. Working in an IBM environment, students deal with typical data processing problems, including multiple-level control-break reports, table processing, sequential and indexed file updating. Various elements of the RPG III programming language are examined.
NOTE A/See §200.2

DESC 486 ***Office Information Systems and Telecommunications*** (3 credits)
Prerequisite: DESC 381, DESC 382. This course covers two distinct but interrelated areas of information technology. First, students are exposed to various organizational issues surrounding office information systems. Specifically, students learn how to evaluate, implement, and support these systems to enhance office productivity. In the second part of the course, students are introduced to the principles of telecommunications in the corporate environment. Emphasis is placed on the effective management of these systems.
NOTE A/See §200.2

DESC 490 ***Special Topics in Decision Sciences and Management Information Systems*** (3 credits)
Prerequisite: Permission of the Department. This course allows for more intensive examination of one or more topics in production/operations management, operations research, business statistics or management information systems.

DESC 492 ***Business Systems Simulation*** (3 credits)
Prerequisite: DESC 250 or COMM 225; DESC 381 or permission of the Department. Computer simulations of deterministic and stochastic systems are studied, using procedural languages such as FORTRAN and BASIC, as well as special simulation-oriented languages. Topics include the collection and preliminary analysis of input data, verification, validation, design of model experiments, and the analysis and presentation of the results. Students study and simulate a real-life situation.
NOTE A/See §200.2

DESC 493 ***Decision Support and Expert Systems*** (3 credits)
Prerequisite: DESC 350, DESC 378, DESC 381, DESC 382. New developments in information technology such as data bases, fourth-generation languages, and artificial intelligence have changed the nature of traditional business decision support systems (DSS). This course starts by examining the human decision-making process and categories of decision tasks. It then evaluates the requirements for an effective user-machine interface. The impact of the new end-user computing tools is considered in relation to DSS design. Finally, the principles of business expert systems are explained, with examples of potential areas for application.
NOTE A/See §200.2

61.60 ECONOMICS

Programmes

BComm students who wish to follow an Honours or Major programme in Economics may meet the requirements of the Faculties of Commerce and Administration and of Arts and Science by following the programmes described below. The course descriptions for Economics courses may be found in §31.080.

Students seeking admission into the Honours programme require approval of the Department, following a recommendation from its Honours Committee.

BComm students wishing to take a Minor in Economics may do so by selecting 30 credits in Economics in consultation with the Economics Department.

90 BComm Honours in Economics

Year I

3 COMM 212
3 COMM 215
3 COMM 217
3 COMM 210
3 COMM 220
3 COMM 222
3 COMM 224
3 COMM 225
6 ECON 301, 302

Year II

3 COMM 301
3 COMM 305
3 COMM 308
3 COMM 315
3 COMM 310
6 ECON 303, 304
3 Chosen from ECON 318, 319*
6 ECON elective credits

Year III

3 COM 410
6 ECON 401, 403
6 ECON 421, 423
12 Chosen from 400-level ECON courses
3 Elective credits chosen in consultation with the Faculty†

**If the student does not have a calculus course and a linear algebra course, ECON 325 and 326 should be taken instead.*

†*See §200.7*

NOTE: Candidates to the BComm Honours in Economics must have and maintain an overall Grade Point Average of 3.00 ("B"). The minimum acceptable grade in any course must be 2.00 ("C"). Averages are calculated on Concordia courses only.

90 BComm Major in Economics

Year I

3 COMM 212
3 COMM 215
3 COMM 217
3 COMM 210
3 COMM 220
3 COMM 222
3 COMM 224
3 COMM 225
6 ECON 301, 302

Year II

3 COMM 301
3 COMM 305
3 COMM 308
3 COMM 315
3 COMM 310
6 ECON 303, 304
3 Chosen from ECON 318, 319, 324
6 ECON elective credits

Year III

3 COMM 410
12 Chosen from 400-level ECON courses
3 ECON elective credits
12 Elective credits chosen in consultation with the Faculty†

†*See §200.7*

† *A listing of possible elective credits is available in the Associate Dean's Office in the Guy Metro building, second floor.*

61.70 FINANCE

Faculty

Professor and Chair of the Department
ABOLHASSAN JALILVAND

Professors
MOHSEN ANVARI
LAWRENCE KRYZANOWSKI

Associate Professors
ABRAHAM BRODT
ALAN HOCHSTEIN
ARVIND JAIN
GREGORY LYPNY
JIHAD NADER
TAE PARK
LATHA SHANKER
LORNE SWITZER

Assistant Professors
SANDRA BETTON
RICHARD CHUNG
MARK FLOOD
JEANNETTE SWITZER
PAULA VARSON

Lecturers
ARSHAD AHMAD
JAY MANNADIAR

Location

Sir George Williams Campus
Annex GM, Room: 503-55
(514) 848-2789

Department Objectives

The Department of Finance is committed to excellence in both research and teaching and has earned a solid reputation as a productive and research oriented academic unit. The Department's research activities include theoretical, empirical, and applied contributions – all aimed at furthering knowledge in the field. Its teaching activities cover a wide range of topics including corporate finance, investment, international finance, personal finance, optimization techniques, portfolio management, options and futures and fluctuations in security prices, exchange rates, and interest rates.
Teaching effectiveness represents the cornerstone of the Department's teaching objectives. The Department's curriculum is a dynamic one which keeps up with current trends and innovations in the financial area. Department members have been recognized not only with Faculty Teaching Awards but also internationally by winning the 3M Teaching Fellowship Award.
The Department has developed orientation and training programmes with major corporations and financial institutions for its students. Through this type of external involvement, classroom teaching is effectively blended with the complexities of the real world thereby providing students not only with a more meaningful education but also with job opportunities.

Programmes

24 Major in Finance
3 FINA 440
3 FINA 460
18 additional 400-level credits offered by the Department

12 Minor in Finance
3 FINA 440
3 FINA 460
6 additional 400-level credits offered by the Department

Courses

FINA 214 ***Introduction to Finance I***
(3 credits)
Prerequisite: ACCO 213 or COMM 217; DESC 243 or COMM 215; ECON 201 or 203 previously or concurrently. This course deals with corporate financial analysis and planning, the management of current assets, the time value of money concept, fixed asset management, and capital expenditure decisions. *NOTE A/See §200.2*
NOTE: Students entering the BComm or BAdmin programme as of September 1996 may not take this course for credit.

FINA 315 ***Introduction to Finance II***
(3 credits)
Prerequisite: FINA 214. This course deals with sources of short- and long-term financing, leasing, the cost of capital, capital structure and valuation, dividend policy, and expansion and failure. *NOTE A/See §200.2*
NOTE: Students entering the BComm or BAdmin programme as of September 1996 may not take this course for credit.

FINA 417 ***Capital Budgeting Theory***
(3 credits)
Prerequisite: FINA 440; FINA 460. This course provides an in-depth coverage of analytical techniques for rational capital investment decisions by corporations. Emphasis is placed on the assessment of investment choices within the overall strategic framework of the firm, and

on the practical as well as the theoretical aspects of the decision process.
NOTE A/See §200.2

FINA 419 ***Options and Futures*** (3 credits)
Prerequisite: FINA 440; FINA 460. This course on options and futures is a comprehensive analysis of the options and futures markets in North America. The student is introduced to the different markets for these instruments and their institutional details. The different types of options and futures currently trading are examined. The principles of valuation of futures and options, their use in risk management through hedging techniques and their use in speculative strategies are studied. Emphasis is placed on the analysis of financial options and futures.

FINA 420 ***Short-Term Financial Management*** (3 credits)
Prerequisite: FINA 440; FINA 460. This course is concerned with the key aspects of short-term financial management. It begins with a brief coverage of the institutional environment facing the financial manager in Canada. A detailed coverage of sources for short-term borrowing and investments is presented. The structure of the Canadian financial system along with a description of the various methods of effecting payments as well as the clearing and settlement system are covered. Topics in overall liquidity management are briefly reviewed from a theoretical perspective. Traditional subjects in cash management, i.e., collections, disbursement and control, forecasting, company bank relationship, and short-term investment and borrowing are examined next. Such new developments as electronic data interchange and EFT/POS are also examined. The course also provides a coverage of trade credit both from a theoretical positive standpoint and normative viewpoint.

FINA 424 ***Personal Finance Management*** (3 credits)
Prerequisite: FINA 315 or COMM 308. This course is designed to assist the student in making rational decisions when consulting in personal financial activities. Topics covered include personal budgeting, spending pattern analysis, the proper use of credit, housing, investment (both traditional and modern), tax and retirement planning. Case studies are utilized when possible.

FINA 430 ***Financial Management*** (3 credits)
Prerequisite: FINA 315 or COMM 308. The intent of this course is to develop skill in the identification and structuring of financial problems, in the selection of appropriate analytical techniques for their solution, and in the application of such techniques to decision-making in actual business situations. A variety of cases are used to achieve these objectives. *NOTE A/See §200.2*

FINA 431 ***Applied Corporate Finance*** (3 credits)
Prerequisite: FINA 440; FINA 460. This course uses case discussions to focus on the application of the financial management principles learned in FINA 440 and 460 in real-world contexts, with particular emphasis on capital structure and dividend policies, valuation and corporation acquisitions, cost of capital determination, and capital expenditure decisions. *NOTE A/See §200.2*

FINA 440 ***Theory of Finance*** (3 credits)
Prerequisite: FINA 315 or COMM 308. This course is designed to provide a rigorous theoretical foundation on which subsequent 400-level finance courses can be built. The first part of the course covers, in depth, the theories of investor choice under conditions of uncertainty focusing on portfolio theory, asset pricing, and option pricing theories. Building on such theoretical foundations, the second part of the course focuses on developing the basic theory of the firm's decision-making process under ideal capital market conditions. This analysis is extended to incorporate the implications of some fundamental imperfections such as agency problems and informational imperfections. *NOTE A/See §200.2*

FINA 441 ***Theory of Corporate Finance*** (3 credits)
Prerequisite: FINA 440; FINA 460. This course focuses on the application of the modern theory of finance to corporate decisions. Building upon the material covered in FINA 440 and 460, it examines the firm's investment and financial decisions under various economic and capital market conditions. More specifically, topics covered include cost of capital, capital structure decisions, evaluation and the application of the recently developed financial innovations in the debt market (e.g., swaps and junk bonds), mergers and acquisitions and leveraged buyout decisions, and dividend and equity management strategies. *NOTE A/See §200.2*

FINA 452 ***Investment Analysis*** (3 credits)
Prerequisite: FINA 440; FINA 460. This course is devoted to an examination of the investment decision, both from the viewpoint of the individual investor and the institutional investor. Valuation of different financial instruments such as treasury bills, bonds, common stocks, preferred stocks, options, warrants, convertibles, rights, futures both commodity and financial, mutual funds and pension funds, and the use of different instruments in various investment strategies such as investment, speculation, hedging, and arbitrage are examined. Techniques examined by analysts to pick investments such as fundamental analysis, technical analysis, and quantitative analysis are studied.
NOTE A/See §200.2

FINA 453 ***Portfolio Management*** (3 credits)
Prerequisite: FINA 440; FINA 460. This course

focuses on modern investment theory and its application to the management of entire portfolios. Topics include: a) construction of optimal asset portfolios using techniques such as the single index model, b) extensions of the capital asset pricing model theory and tests example, the zero-beta model, c) criteria for evaluation of investment performance, d) active vs. passive portfolio management, e) portfolio insurance, f) market efficiency. A computer exercise is assigned to illustrate the application of the theory. *NOTE A/See §200.2*

FINA 455 ***Seminar in Finance*** (3 credits)
Prerequisite: FINA 440; FINA 460. This course is intended primarily for Majors students and provides an opportunity for more intensive study in one or more specific topics of finance. The topic varies according to the special interests of the professor and the students. Students repeating FINA 455 register for credits under FINA 456. *NOTE A/See §200.2*
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

FINA 460 ***Domestic and International Capital Markets*** (3 credits)
Prerequisite: FINA 315 or COMM 308. This course provides an understanding of the way in which domestic and international capital markets operate. It is designed to be a foundation course for all subsequent 400-level finance courses. Emphasis is placed on describing the nature and functioning of the Canadian financial system and evaluating its efficiency in terms of the relevant theories of financial intermediation. Specific topics that are addressed include the term structure of interest rates, and the structure and operations of securities, mortgages, and money markets. The latter part of the course extends the analysis into an international framework with a discussion of the international monetary system, foreign exchange markets, overseas capital markets, and an introduction to foreign exchange risk exposure and management. *NOTE A/See §200.2*

FINA 461 ***Management of Financial Institutions*** (3 credits)
Prerequisite: FINA 440; FINA 460. The objective of this course is to provide a framework for understanding the fundamental variables and relationships that affect the management of Canadian financial institutions in the domestic and international environment. Specific topics include an overview of the financial institutions sector, the regulatory framework, performance and cost analysis, strategic planning, capital structure issues, asset and liability management, management of financial institution risk, international intermediation, and financial innovation. *NOTE A/See §200.2*

FINA 467 ***(also listed as IBUS 469) International Financial Management*** (3 credits)
Prerequisite: FINA 315 or COMM 308. This course is designed for students to acquire and demonstrate knowledge of the fundamental principles and issues in international financial management. It covers such topics as foreign exchange markets, exchange rate behaviour, structure and meaning of the international balance of payments, the functioning of fixed and floating exchange rate systems, short- and long-term investment and borrowing decisions, eurocurrency markets, foreign exchange risk management and capital budgeting decisions for overseas investment. In sum, the topics are covered from the perspective of an individual who wishes to know how the international financial environment will affect the firm.
NOTE: Students who have received credit for IBUS 469 may not take this course for credit.

FINA 491 ***Real Estate Investment and Finance*** (3 credits)
Prerequisite: FINA 440; FINA 460. This course deals with the central issues in real estate finance and investment. Topics in property management and real estate development which are covered include the organization of real estate markets, pricing, inflation, taxation, valuation methods, brokerage, ownership forms, and real estate law.

61.80 INTERNATIONAL BUSINESS

Programme Director
TERRI R. LITUCHY

Location

Sir George Williams Campus
Annex GM, Room: 600-41
(514) 848-2911

Programme Objectives

The International Business programme aims to improve student's abilities to manage enterprises operating internationally. Through a multi-disciplinary teaching approach, the International Business programme examines the major challenges that face the global business community.

Programmes

24 Major in International Business
12 IBUS 462, 465, 466, 469
12 Additional credits from IBUS 467, 468, 470, 471, 492, 493; ECON 341, 377, 442, 443; POLI 315, 321, 323

12 Minor in International Business
6 IBUS 462, 469
6 IBUS 465, 466, 467, 468, 470, 471, 492, 493

Courses

IBUS 462 ***(also listed as MARK 462) Environment of World Business*** (3 credits)
Prerequisite: ACCO 218 or COMM 305; DESC 244 or COMM 215 or equivalent; FINA 214 or COMM 308; MANA 266 or COMM 210; MARK 350 or COMM 224. This is a foundation course in international business; the objective is to present information which exposes the student to cultural, social, political, economic, legal, and financial environments in which Canadian business executives manage their operations abroad. All students are encouraged to develop their own philosophy towards international business activities by developing research and analytical skills in analysing current and long-term problems perceived in different economic systems and environments. Specific topics include empirical dimensions of world economy, economic development, international trade and investment patterns, regional economic co-operation, area studies, Canadian nationalism, and foreign investment in Canada, etc.
NOTE: Students who have received credit for MARK 462 may not take this course for credit.

IBUS 465 ***(also listed as MARK 465) International Marketing Management*** (3 credits)
Prerequisite: MARK 350 or COMM 224; MARK 462 or IBUS 462. This course studies the management approach to international marketing, with emphasis on key variables that are controllable by the international marketing manager. Attention is focused on market measurement, product policy, channels, pricing, and promotion, with special emphasis on the development and control of multinational marketing strategies and programmes.
NOTE: Students who have received credit for MARK 465 may not take this course for credit.

IBUS 466 ***(also listed as MANA 466) Management of Multinational Corporations*** (3 credits)
Prerequisite: MARK 462 or IBUS 462; MANA 340 or COMM 222. This is a course that demonstrates the analytical tools of operations and organization theory applicable within a multinational company. The course is designed to give students a grasp of the problems of strategy formulation and organization, and inculcates a general knowledge of the major parameters in which an international manager operates. Focus is on the Canadian, as well as other international companies based in U.S.A., Europe, Japan, etc.
NOTE: Students who have received credit for MANA 466 may not take this course for credit.

IBUS 467 ***(also listed as MARK 467) Marketing in Selected Parts of the World*** (3 credits)
Prerequisite: MARK 462 or IBUS 462. This is an area study course in which selected parts of the world are covered in depth. The course demonstrates the use of sources and methodologies not typical in Canadian business research. Countries/region to be covered may include Japan, Pacific Region, the Middle East, India, China, Russia, East European Countries, Western Europe, Africa, and Latin America.
NOTE: Students who have received credit for MARK 467 may not take this course for credit.

IBUS 468 ***(also listed as MARK 468) Export/Import Procedures and Organization*** (3 credits)
Prerequisite: MARK 462 or IBUS 462. This

course deals with the administration of foreign trade from a Canadian perspective with emphasis on applied techniques. Topics to be covered include world trade patterns, trade theories, export financing, custom tariffs and operation, international transportation, and government export promotion services.
NOTE: Students who have received credit for MARK 468 may not take this course for credit.

IBUS 469 ***(also listed as FINA 467) International Financial Management*** (3 credits)
Prerequisite: FINA 315 or COMM 308. This course is designed for students to acquire and demonstrate knowledge of the fundamental principles and issues in international financial management. It covers such topics as foreign exchange markets, exchange rate behaviour, structure and meaning of the international balance of payments, the functioning of fixed and floating exchange rate systems, short- and long-term investment and borrowing decisions, eurocurrency markets, foreign exchange risk management, and capital budgeting decisions for overseas investment. In sum, the topics are covered from the perspective of an individual who wishes to know how the international financial environment will affect the firm.
NOTE: Students who have received credit for FINA 467 may not take this course for credit.

IBUS 470 ***(also listed as ACCO 468) International Accounting*** (3 credits)
Prerequisite: MARK 462 or IBUS 462; ACCO 218 or COMM 305; FINA 315 or COMM 308 previously or concurrently. This course examines accounting practices employed by different countries; accounting and financial control of international operations, and various consolidation procedures and their effect on the interpretation of financial statements are discussed.
NOTE: Students who have received credit for ACCO 468 may not take this course for credit.
NOTE: This course will be offered in the second term only.

IBUS 471 ***Topics in International Business*** (3 credits)
Prerequisite: MARK 462 or IBUS 462. This course is intended primarily to provide an opportunity for more intensive study in one or more specific topics of international business. The topic will vary according to the special interests of the professor and the students.
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

IBUS 492 ***(also listed as MARK 492) Cross-Cultural Communications and Management*** (3 credits)
Prerequisite: MARK 462 or IBUS 462. This course deals with the multicultural dimensions of international business operations. The objective is to develop Canadian managerial skills for effective performance in an international setting. Topics to be covered include international negotiations, management of multicultural personnel, cross-cultural consumer behaviour profile, cross-cultural communication, and other cultural aspects of marketing strategy.
NOTE: Students who have received credit for MARK 492 may not take this course for credit.

IBUS 493 ***(also listed as MANA 493) International Business Law*** (3 credits)
Prerequisite: MARK 462 or IBUS 462; MANA 475 or COMM 315. This course is an introduction to international business law. The focus is Canadian but comparative material is included and problems relating to other legal systems are examined. Topics to be covered include private loans applicable to international business transactions, international sales, federal regulations, export controls and anti-dumping, export insurances, and bilateral trade agreements.
NOTE: Students who have received credit for MANA 493 may not take this course for credit.

61.90 MANAGEMENT

Faculty

Associate Professor and Chair of the Department
RICK MOLZ

Professors
STEVEN H. APPELBAUM
VISHWANATH V. BABA
RON CRAWFORD
A. BAKR IBRAHIM
MUHAMMED JAMAL
GARY JOHNS
JOE KELLY

Associate Professors
KAMAL ARGHEYD
BLAKE E. ASHFORTH
J. PIERRE BRUNET
MICK CARNEY
LINDA DYER
MARTIN FRANKLIN
RICHARD LANDE
JEAN MCGUIRE
ROBERT J. OPPENHEIMER
PETER E. PITSILADIS
G.S. RAJAN
ALAN SAKS
JOYA SEN
WILLIAM TAYLOR

Assistant Professors
LOUIS HÉBERT
TERRY LITUCHY
NORD SOVIK

Visiting Assistant Professor
PIERRE SEVIGNY

Lecturers
ROSALIND KNITTER
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Location

Sir George Williams Campus
Annex GM, Room: 503-37
(514) 848-2924

Department Objectives

The Management Department plays a critical role in introducing a general management perspective to integrate the specialist orientation of other Departments. As a result, its courses are tailored to be practical and most feature a process of skill-building orientation enhanced by case discussions, experimental exercises, role plays, and student presentations. The major topic areas covered are organizational behaviour and design, strategies and policy, human resource management, entrepreneurship and small business management, industrial relations, and business law.

Programmes

24 Major in Administrative Management
3 MANA 341
3 MANA 345
3 MANA 364
3 MANA 369
3 MANA 461
3 MANA 462
3 MANA 476
3 Credits of MANA 402, 420, 442, 474

12 Minor in Administrative Management
3 MANA 369
3 MANA 442
3 MANA 461
3 MANA from the programme of Major in Administrative Management

12 Minor in Entrepreneurship and Small Business Management
3 MANA 454
3 MANA 450
3 MANA 451
3 MARK 352 or 485

24 Major in Human Resource Management
3 MANA 341
3 MANA 462
3 MANA 463
15 Credits of MANA 342, 364, 365, 420, 441, 443, 444, 445, 479

12 Minor in Personnel Management
3 MANA 341
3 MANA 364
3 MANA 462
3 MANA from programme of Major in Human Resource Management

12 Minor in Managerial Law
3 MANA 476
3 MANA 477
3 MANA 478
3 MANA 479

24 Major in Industrial Relations

3 MANA 364
3 MANA 365
3 MANA 462
3 MANA 472
3 MANA 479
3 ECON 381 or 481*
3 Credits of MANA 469, 470, 499
3 Credits of SOCI 346, 347

NOTE: In order to make it possible to take the programme in 24 credits, one or more Sociology courses will be subdivided next year.
**Students who wish to take ECON 481 without ECON 381 as a prerequisite must seek permission from the Economics Department.*

Courses

MANA 211 ***Business Law*** (6 credits)
A general survey of the law obtaining in the Province of Québec, with special emphasis on the aspects thereof relating to business and commerce. It includes a basic outline of the law of domicile, marriage, persons, property, ownership and its modifications, successions, gifts and wills, testamentary executors, contracts, quasi-contracts, offences and quasi-offences, privileges, hypothecs and prescription, and a more detailed study of the contract of sale, lease and hire of things and of work, mandate, loan, deposit, partnership, suretyship, pledge, insurance, and an outline of the basic law applying to negotiable instruments, corporations, carriers, bankruptcy and winding up, and copyrights, patents, and trade marks.
NOTE A/See §200.2
NOTE: Commerce and Administration students may not take this course for credit.

MANA 213 ***Foundations of Behaviour*** (3 credits)
The purpose of this course is to introduce the student to those behavioural concepts relevant to the study of organizational problems. Topics include perception, attitudes, personality, group behaviour, roles, and culture as they relate to organizational processes.
NOTE: Students who have received credit for PSYC 200 or equivalent may not take this course for credit.
NOTE: Commerce and Administration students may not take this course for credit.

MANA 266 ***Foundations of Modern Management*** (3 credits)
This course introduces students to the basic elements of the managerial process (e.g., planning, organizing, controlling, motivating, etc.) and presents the historical base upon which contemporary management theory and practice is built. The evolution and scope of management are considered, with illustrations from both large and small Canadian enterprises.
NOTE: Students entering the BComm or BAdmin programme as of September 1996 may not take this course for credit.

MANA 340 ***Organizational Behaviour*** (3 credits)
Prerequisite: MANA 266 or COMM 210. This course is designed to provide the student with an opportunity to study individual behaviour in formal organizations. Through theoretical case and experiential approaches, the focus of instruction progressively moves through individual and group levels of analysis. Topics covered in this course include perception, learning, personality, motivation, leadership, and group behaviour. The objective of the course is to improve the student's perceptual, analytical, and problem-solving skills in the diagnosis and innovative resolution of behavioural problems which are requisite for organizational performance.

MANA 341 ***Organization Theory*** (3 credits)
Prerequisite: MANA 340 or COMM 222. The function, structure, and processes of organizations provide the focus for study. Interrelationships among the psychosocial, technological, and formal properties of organizations are examined. Emphasis is placed on the diagnosis, analysis of organizational problems, and optimal-design alternatives for improving organizational performance and effectiveness are explored. The objective is to provide the student with a thorough understanding of the nature of contemporary complex organizations.

MANA 342 ***Organizational Change*** (3 credits)
Prerequisite: MANA 340 or COMM 222. An administrative perspective of the behavioural and rational empirical strategies for effecting change in organizations. Emphasis is placed on an eclectic approach to the planning and implementation of change. Models and methods of change are reviewed, and opportunities for the development of change-agent skills are provided.

MANA 345 ***Production Management I*** (3 credits)
Prerequisite: DESC 250 or COMM 225. It is the production function of the enterprise that gives us the products or services that we sell. In this course, we attempt to help management guide and control this area. Topics include government programmes and incentives, health and safety regulations, production-incentive systems, management-information systems, and plant location.

MANA 346 ***Production Management II*** (3 credits)
Prerequisite: MANA 345. This course is a continuation of MANA 345 and is designed to

supplement the knowledge of those students choosing to minor in Production Management. One or more of the following topics is dealt with in depth: work measurement and development of standard data for incentive systems; production planning, scheduling, and control; research and development; plant layout and materials handling.

MANA 364 ***Industrial Relations*** (3 credits)
Prerequisite: MANA 340 or COMM 222. Industrial Relations is a survey course designed to provide comprehensive knowledge about the state of labour-management relations in Canada. *NOTE A/See §200.2*

MANA 365 ***Collective Bargaining*** (3 credits)
Prerequisite: MANA 364. This course is designed to help the student understand the day-to-day problems of negotiating and administering collective agreements. Course content takes into consideration behavioural aspects of industrial relations.
NOTE A/See §200.2

MANA 368 ***Social Aspects of Enterprise*** (3 credits)
Prerequisite: MANA 266 or COMM 210. The purpose of this course is to facilitate understanding of the impact of social, economic, political, and ethical environments on the process of managerial decision-making. Consideration is given to the conceptual foundations of business, including the business corporation, its function, and the legitimacy of its power structure.
NOTE A/See §200.2

MANA 369 ***Canadian Business and its Environment*** (3 credits)
Prerequisite: DESC 244 or COMM 215; ECON 203; MANA 266 or COMM 210; FINA 214 or COMM 308; MARK 213 or COMM 224. The purpose of this course is to examine the functioning of Canadian business and its relationships with its public, including stockholders, consumers, employees, labour, community, and government. Major contemporary issues, such as the impact of technology on people and the physical environment, are examined. *NOTE A/See §200.2*

MANA 402 ***Supervisory Practice*** (3 credits)
Prerequisite: MANA 340 or COMM 222. A seminar focusing on the emerging understanding of leadership and supervisory techniques in task-oriented organizations. Contemporary concepts and research on leadership and supervision are examined. The seminar analyses the multiple bases for influence and the situational or contingency aspects of leadership. A balance among the conceptual, diagnostic, and experiential approaches to the development of supervisory capability is emphasized.

MANA 409 ***Principles of Insurance*** (3 credits)
This course examines the growth of insurance companies in Canada and their effect upon the economy. In addition, the basic fundamentals of insurance are covered, including such topics as life insurance, income replacement, annuities, group insurance, liability, auto, fire, and theft insurance. Practical applications and use of insurance dealing with both personal and business situations are noted. *NOTE A/See §200.2*

MANA 420 ***Business Research Methods*** (3 credits)
Prerequisite: MANA 340 or COMM 222; DESC 244 or COMM 215. This seminar focuses on the means by which social and organizational data can be gathered, analysed, and interpreted. Needs of the firm for efficient, timely, and unobtrusive research are given special attention. Topic coverage includes applications of the scientific method, research design, field research techniques, data analysis, research utilization, and use of existing information sources. Student projects parallel the classroom activities by designing and conducting business research studies of limited scale.

MANA 441 ***Conflict Management*** (3 credits)
Prerequisite: MANA 340 or COMM 222. This course examines the causes and consequences of conflict and alternative strategies for managing conflict. It utilizes lectures, videos, cases, interaction exercises, and videotaping to convey theory, empirical research and to enhance one's ability to effectively manage conflict.

MANA 442 ***Managerial Concepts*** (3 credits)
Prerequisite: MANA 340 or COMM 222. This course provides an opportunity for intense study of recent developmental topics within the discipline. Topics might include women in management; managing in Québec; management by objectives; long-range planning; equity theories of motivation; changing roles of managers.

MANA 443 ***Compensation and Benefits Management*** (3 credits)
Prerequisite: MANA 462. The purpose of this course is to provide a thorough understanding of the role, conceptual basis, procedures, and methods associated with the management and administration of compensation and benefits within an organization. Issues such as job families and ladders, salary surveys, position valuation, pay equity, incentive compensation, and benefits administration are addressed.

MANA 444 ***Training and Development*** (3 credits)
Prerequisite: MANA 462. This course examines the conceptual and practical issues regarding orientation of new employees, the socialization

process, learning theories and diagnoses, training technologies, developmental strategies, and the management of the training and development function.

MANA 445 ***Health and Safety Management*** (3 credits)
Prerequisite: MANA 462. This course examines the critical aspects of health and safety administration within organizations. It provides a brief overview of the relevant legislation and focuses upon prevention, causes, detection, intervention, reintegration, epidemiological and clinical investigation, and health development. Physical and psychological aspects of health and safety are examined.

MANA 450 ***Entrepreneurship*** (3 credits)
Prerequisite: ECON 203; MANA 266 or COMM 210; MARK 213 or COMM 224; FINA 214 or COMM 308; DESC 244 or COMM 315. This course provides a source of the basic techniques needed to start or purchase a business. Consideration is given to evaluation methods, the nature of an entrepreneur, legal and tax aspects, and other aspects of a business venture.
NOTE: Students who have received credit for MANA 452 may not take this course for credit.

MANA 451 ***Managing a Small Business*** (3 credits)
Prerequisite: MANA 450. This introductory course emphasizes the operational aspects of management that are uniquely important to a small enterprise. It provides opportunity to practise operational decision-making under conditions characteristic for small firms.

MANA 454 ***Policy and Strategy for the Small Enterprise*** (3 credits)
Prerequisite: FINA 315 or COMM 308; MARK 350 or COMM 224; DESC 250 or COMM 225; MANA 340 or COMM 222; MANA 475 or COMM 315; MANA 450; MANA 451; and 39 additional credits in the Faculty of Commerce and Administration. This course helps the student to become familiar with problems of strategy formulation and implementation within the framework of starting and/or managing a small- or medium-sized enterprise. All functions of management are considered in this context and fieldwork is encouraged.

MANA 460 ***Business Policy I*** (3 credits)
Prerequisite: FINA 315 or COMM 308; MARK 350 or COMM 224; DESC 250 or COMM 225; MANA 340 or COMM 222; and 45 additional credits in the Faculty of Commerce and Administration. This course is designed to introduce the student to strategy formulation and implementation. Emphasis is on integrating the learning of the programme in order to develop in students a global view of the organization. Cases are drawn from the private, public, and non-profit sectors, and consideration is given to policy problems in the small business and large corporation context, as well as the Canadian and international milieus.

MANA 461 ***Business Policy II*** (3 credits)
Prerequisite: MANA 460. This course concentrates on how the strategy formulated in MANA 460 is implemented by the organization. Organization structures are studied in differing environments. The relationships between organization structures and the organization's strategy are analysed. The problems encountered by general managers as well as middle managers in the process of the implementation of the set policies are studied.
NOTE A/See §200.2

MANA 462 ***Personnel Management I*** (3 credits)
Prerequisite: MANA 340. The aim of the course is to provide a sound background in fundamentals, theory, principles, and practice of human resource management. It focuses on the areas of human resource planning, personnel recruitment, selection and placement, performance appraisal, and career planning.
NOTE A/See §200.2

MANA 463 ***Personnel Management II*** (3 credits)
Prerequisite: MANA 462 and two Human Resource Management Major elective courses. This course is a final-year integrative seminar for Human Resource Management majors. It focuses on the philosophies underlying current human resource management principles and policies and the processes of their implementation. It utilizes cases to integrate human resource management areas such as recruitment, selection, training, performance appraisal, compensation, and benefits administration.

MANA 466 ***(also listed as IBUS 466) Management of Multinational Corporations*** (3 credits)
Prerequisite: MARK 462 or IBUS 462; MANA 340 or COMM 222. This is a course that demonstrates the analytical tools of operations and organization theory applicable within a multinational company. The course is designed to give students a grasp of the problems of strategy formulation and organization, and inculcates a general knowledge of the major parameters in which an international manager operates. Focus is on the Canadian as well as other international companies based in U.S.A., Europe, Japan, etc.
NOTE: Students who have received credit for IBUS 466 may not take this course for credit.

MANA 467 ***Management Theory — Advanced*** (3 credits)
Prerequisite: MANA 266 or COMM 210. This course attempts to develop further the conceptual framework which was established in MANA 266. To this end, it examines selected

management concepts and appraises their value in terms of their application to the actual practice of business. Issues such as the effect of innovation and technological change, managing the knowledge worker, organization planning, and comparative management are considered. *NOTE A/See §200.2*

MANA 468 ***North American Labour Movements*** (3 credits)
Prerequisite: MANA 364. This course focuses on the evolution of the labour movements in the U.S., Canada, and Québec since 1945. The structure and philosophy of American, Canadian, and Québec unions since that date are also analysed. The similarities and dissimilarities of the labour movements in the U.S., Canada, and Québec, their impact on society, and the emerging role of the state in union affairs are also covered.

MANA 469 ***Industrial Relations in the Public Sector*** (3 credits)
Prerequisite: MANA 364. Historically, the government plays a third-party role in collective bargaining. But as the state emerges as the largest employer in advanced industrial society, its combined roles as employer and mediator demand clarification and modernization. This course analyses the development of the state as an employer, the growth of public sector unionism, and the impact of public sector collective bargaining on the private sector. Emphasis is on the Québec and Canadian experiences, with comparisons made to public sector industrial relations in other countries as well.

MANA 470 ***Comparative Industrial Relations Systems*** (3 credits)
Prerequisite: MANA 364. This course begins by presenting and contrasting the major theories of labour-management-state competition for control of the work situation. It then moves to applying those theories to national industrial relations systems in advanced industrial capitalist societies, in developed state socialist societies, and in underdeveloped societies.

MANA 471 ***Issues in Québec Industrial Relations*** (3 credits)
Prerequisite: MANA 364. In this course, the focus is on industrial relations in specific industrial sectors in Québec, stressing the impact of interests and forces outside the sector which influence the nature of industrial relations within it. The specific sectors are chosen each term by the instructor and the students in order to respond to special interests of the students.

MANA 472 ***Grievance and Arbitration*** (3 credits)
Prerequisite: MANA 364. What are the nature and limits of a collective agreement? What can be covered and what not? This courses discusses these questions and then goes on to analyse the grievance process and the various forms of grievance arbitration from technical and social perspectives.

MANA 474 ***Institutional Administration*** (3 credits)
Prerequisite: MANA 340 or COMM 222. Management of institutions and agencies in the non-profit (private and public) sector presents unique opportunities and challenges to the manager. This class provides an introduction to that field. Emphasis is given to those characteristics of the organization and functioning of these programmes which distinguish them from commercial firms, including the peculiar nature of human services and the influence of social-political processes. Class activities utilize theoretical and case material and field observations. Student projects concentrate on policy formulation and administrative function in an agency of the student's choice.

MANA 475 ***Business Law I*** (3 credits)
Prerequisite: DESC 243 or COMM 215; ECON 203; MANA 266 or COMM 210; MARK 213 or COMM 224; FINA 214 or COMM 308. This course deals with the Canadian and Québec Law governing business organizations, and the Québec Civil Law concerning persons, property, and ownership obligations; civil responsibility; contracts in general; and mandate.

MANA 476 ***Business Law II*** (3 credits)
Prerequisite: MANA 475 or COMM 315. Federal and provincial government regulation of business, including bankruptcy, anti-combines, trade marks and patents, labour law, insurance, special commercial contracts including secured transactions, fair employment, environmental law.

MANA 477 ***The Law of Insolvency and Secured Transactions*** (3 credits)
Prerequisite: MANA 475 or COMM 315. An examination of the various laws and cases, both federal and provincial, across Canada, governing commercial insolvency, with particular emphasis upon the liability of directors and officers, and the creditor's rights in bankruptcy, including the role of inspectors and the trustee. An examination of the various forms of secured transactions, of which creditors may avail themselves, more particularly financial institutions, including assignment of book debts, pledge, mortgages, bonds, trust deeds.

MANA 478 ***Company Law*** (3 credits)
Prerequisite: MANA 475 or COMM 315. The examination of important legal issues relating to the business corporation, including an analysis of their legal nature and structure, and the powers, rights, and obligations of directors, officers, and shareholders, including analysis of

the legal implications, insider trading, company re-organization, mergers, joint ventures, and takeovers. These matters are studied through the Federal, Québec, and Ontario Companies' Acts and relevant court cases.

MANA 479 ***Labour Law*** (3 credits)
Prerequisite: MANA 475 or COMM 315. A study of the law and relevant court cases dealing with major labour-management issues, including collective bargaining, union certification, strikes, lock-outs, grievances, and arbitration. Covers Canadian law, primarily that of Québec.

MANA 480 ***Transportation Policy*** (3 credits)
Prerequisite: MANA 340 or COMM 222. This course provides an overview of the economic and institutional setting of the transportation system, including both freight and passenger operations. Government and corporate policies affecting shippers and carriers are examined, as well as policy development in a deregulated environment. This course provides an introduction to the transportation industry. The surface, both rail and truck, as well as marine modes are covered in terms of the regulatory issues which impact upon the movement of freight. Attention is also given to passenger transportation in the air and bus modes.

MANA 493 ***(also listed as IBUS 493) International Business Law*** (3 credits)
Prerequisite: MARK 462 or IBUS 462; MANA 475 or COMM 315. This course is an introduction to international business law. The focus is Canadian but comparative material is included and problems relating to other legal systems are examined. Topics to be covered include private loans applicable to international business transactions, international sales, federal regulations, export controls and anti-dumping, export insurances, and bilateral trade agreements.
NOTE: Students who have received credit for IBUS 493 may not take this course for credit.

MANA 499 ***Special Topics in Administration*** (3 credits)
Prerequisite: Written permission of the Department. Intended to complement and supplement business courses taken previously or concurrently, this course emphasizes business literature and modern thought. Students are encouraged to work independently on research topics of interest to them. Students repeating MANA 499 register for credits under MANA 498. *NOTE A/See §200.2*
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

61.100 MARKETING

Faculty

Associate Professor and Chair of Department
ZEKI B. GIDENGIL

Professors
ULRIKE de BRENTANI
V.H. (MANEK) KIRPALANI
MICHEL LAROCHE
RONALD McTAVISH

Associate Professors
BRYAN BARBIERI
MICHEL J. BERGIER
B. KEMAL BÜYÜKKURT
KAILASH C. DHAWAN
MICHAEL K.M. HUI
ANNAMMA JOY
CHANKON KIM
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JERRY ROSENBLATT
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Assistant Professors
LEA PREVEL KATSANIS
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ANNE M. LAVAK
GAD SAAD
MRUGANK V. THAKOR

Sessional Lecturer
HAROLD SIMPKINS

Location

Sir George Williams Campus
Annex GM, Room: 300-31
(514) 848-2952

Department Objectives

The Marketing Department seeks to cultivate in each student the skills and perspectives essential for effective and responsible marketing. Emphasis is on creating marketing strategies and plans based on a thorough understanding of consumer and industrial buying behaviour.
The Department is committed to fostering a dynamic entrepreneurial orientation together with an appreciation of the essence, importance, and potential power of marketing.

Programmes

	Major in Marketing
3	MARK 352
3	MARK 402
3	MARK 490
15	MARK credits offered by the Department.

	Minor in Marketing
3	MARK 352
3	MARK 402
3	MARK 490
3	MARK credits offered by the Department.

CERTIFICATE IN MARKETING RESEARCH

NOTE: This programme is not open to students registered in a programme leading to the undergraduate degree of Commerce or Administration.

Students may transfer into the Certificate programme up to 12 credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Admission Requirements

a) Diploma of Collegial Studies or the equivalent; MATH 208 and 209 or equivalent
or
b) Mature Students: MATH 206, 208, 209 or the equivalent.

Programme

	Certificate in Marketing Research		
3	MARK 213	3	DESC 222
3	MARK 350	3	DESC 243
3	MARK 352	3	DESC 244
3	MARK 402	3	DESC 375
3	MARK 452	3	DESC 477

MINOR IN MARKETING RESEARCH

NOTE: This programme is not open to students registered in a programme leading to the undergraduate degree of Commerce or Administration.

30 Minor in Marketing Research

3	MARK 213	3	DESC 222
3	MARK 350	3	DESC 243
3	MARK 352	3	DESC 244
3	MARK 402	3	DESC 375
3	MARK 452	3	DESC 477

Marketing Co-operative Programme

Director
HAROLD J. SIMPKINS, *Sessional Lecturer*
(514) 848-2955

The Marketing Co-operative programme is offered to students who are enrolled in the BComm programme and are majoring in Marketing. The Marketing co-op is a combination of the common 42-credit core, the Marketing Major and four Work terms. The programme seeks to cultivate in each student the skills and perspectives essential for effective and responsible marketing. Students interested in applying for the Marketing co-op should refer to §24 where a full description of the admission requirements is provided.

Courses

MARK 213 ***The Marketing Process (Introductory)*** (3 credits)
The course examines the nature of marketing, its role in society, and the interrelationships that are operative within the marketing process — both externally as related to society and the consumer, and internally as related to the organization of the marketing process within the firm. Many of the factors influencing these relationships are examined.
NOTE A/See §200.2
NOTE: Students entering the BComm or BAdmin programme as of September 1996 may not take this course for credit.

MARK 350 ***Marketing Management*** (3 credits)
Prerequisite: MARK 213. The course is an introduction to the managerial concepts and practices of marketing. The four basic elements of the marketing mix — the product, the price, promotion, and distribution — and their interrelationships are examined. Use of the case method helps students apply these concepts to realistic marketing problems in a host of business settings, including the small business and the international environment. The course builds on the concepts presented in MARK 213 and develops in the student a critical appreciation of how the concepts and theories relate to the basic tools of marketing; the ability to manipulate these tools in an integrated fashion in a variety of business settings.
NOTE: Students entering the BComm or BAdmin programme as of September 1996 may not take this course for credit.

MARK 351 ***Transportation and Marketing Logistics*** (3 credits)
Prerequisite: MARK 350 or COMM 224. This course deals with economic principles underlying the various modes of transport: i.e., rail, water, motor, air, and pipeline. Current problems of each are discussed. In addition the principles of business logistics are surveyed. Cases are utilized when possible.
NOTE A/See §200.2

MARK 352 ***Buyer Behaviour*** (3 credits)
Prerequisite: MARK 213 or COMM 224; DESC 243 or COMM 215. This course analyses the motivations, roles, and behaviour of the consumers, how they are affected by economic, social, and cultural influences, and how the marketer may model this behaviour for decision-making purposes. *NOTE A/See §200.2*

MARK 402 ***Marketing Research I (Methods)*** (3 credits)
Prerequisite: MARK 350 or COMM 224; DESC 244 or COMM 215. The role of research in the marketing process, the role of models, and the development of measurement techniques are discussed. Emphasis is placed on the nature and scope of marketing research methods for obtaining internal and external data, and on the steps and principles involved in gathering and analysing data. The student is also briefly introduced to applications of marketing research. *NOTE A/See §200.2*

MARK 452 ***Marketing Research II (Application)*** (3 credits)
Prerequisite: MARK 402. The application of marketing research to problem areas such as advertising, sales management, and product strategy. Alternative research designs are applied to actual problems.
NOTE A/See §200.2

MARK 453 ***Advertising and Sales Promotion Management*** (3 credits)
Prerequisite: MARK 350 or COMM 224. The objectives of this course are to provide the

student with an introduction to an understanding of the principles of advertising and sales promotion from three different viewpoints: the nature of services provided by advertising agencies, the needs of the users (i.e. business, institutions) of these services, the needs of society in economic, ethical, and legal terms. *NOTE A/See §200.2*

MARK 454 ***Sales Management*** (3 credits)
Prerequisite: MARK 350 or COMM 224. The course deals with the theoretical and applied aspects of management of personal selling. Through cases, simulations, and special presentations the student learns how to recruit, select, train, organize, motivate, evaluate, compensate, supervise, and control the sales forces. *NOTE A/See §200.2*

MARK 462 ***(also listed as IBUS 462) Environment of World Business*** (3 credits)
Prerequisite: ACCO 218 or COMM 305; DESC 244 or COMM 215 or equivalent; FINA 214 or COMM 308; MANA 266 or COMM 210; MARK 350 or COMM 224. This is a foundation course in international business; the objective is to present information which exposes the student to cultural, social, political, economic, legal, and financial environments in which Canadian executives manage their operations abroad. All students are encouraged to develop their own philosophy towards international business activities by developing research and analytical skills in analysing current and long-term problems perceived in different economic systems and environments. Specific topics include empirical dimensions of world economy, economic development, international trade and investment patterns, regional economic co-operation, area studies, Canadian nationalism, and foreign investment in Canada, etc.
NOTE: Students who have received credit for IBUS 462 may not take this course for credit.

MARK 463 ***Retail Management*** (3 credits)
Prerequisite: MARK 350 or COMM 224. This course seeks to apply the theories of marketing and administration to the retail situation. Topics to be covered include site selection for single and multi-unit retail outlets, organizing and staffing the retail operation, the wholesaler-retailer relationship, consumer behaviour in the retail situation. The impact of such new developments as consumer cooperatives, franchising, discounting, and computer technology on the future of retailing is also considered.
NOTE A/See §200.2

MARK 464 ***Consumerism*** (3 credits)
Prerequisite: MARK 350 or COMM 224. The current evolution of marketing and consumerism is subjected to critical evaluation and analytical review. Problem areas which may be examined include marketing costs and efficiency, the social objectives of and objections to marketing, the impact of marketing on the environment, the "pollution of advertising", ethics of marketers, and the role of governments in the marketplace. *NOTE A/See §200.2*

MARK 465 ***(also listed as IBUS 465) International Marketing Management*** (3 credits)
Prerequisite: MARK 350 or COMM 224; MARK 462 or IBUS 462. This course studies the management approach to international marketing, with emphasis on key variables that are controllable by the international marketing manager. Attention is focused on market measurement, product policy, channels, pricing, and promotion, with special emphasis on the development and control of multinational marketing strategies and programmes.
NOTE: Students who have received credit for IBUS 465 may not take this course for credit.

MARK 467 ***(also listed as IBUS 467) Marketing in Selected Parts of the World*** (3 credits)
Prerequisite: MARK 462 or IBUS 462. This is an area study course in which selected parts of the world are covered in depth. The course demon-strates the use of sources and methodologies not typical in Canadian business research. Countries/region to be covered may include Japan, Pacific region, the Middle East, India, China, Russia, East European countries, Western Europe, Africa, and Latin America.
NOTE: Students who have received credit for IBUS 467 may not take this course for credit.

MARK 468 ***(also listed as IBUS 468) Export/Import Procedures and Organization*** (3 credits)
Prerequisite: MARK 462 or IBUS 462. This course deals with the administration of foreign trade from a Canadian perspective with emphasis on applied techniques. Topics to be covered include world trade patterns, trade theories, export financing, custom tariffs and operation, international transportation, and government export promotion services.
NOTE: Students who have received credit for IBUS 468 may not take this course for credit.

MARK 473 ***Advertising Strategy and Planning*** (3 credits)
Prerequisite: MARK 352, MARK 402, MARK 453. This course deals with advanced topics in the strategic application of advertising to marketing problems and opportunities. Its major focus is the development of the advertising plan. Through case studies, assignments, and group projects, the student develops a deeper understanding of the various steps involved in developing an advertising campaign in Canada, particularly strategy planning, development of objectives, creative and media planning as well as all forms of advertising research.

MARK 485 ***Industrial Marketing*** (3 credits)
Prerequisite: MARK 350 or COMM 224. The course focuses on the managerial aspects of industrial marketing. The concept of organization buying behaviour and its impact on marketing strategy formulation are discussed. Management of the industrial marketing mix considering product service development, intelligence, promotion, channels, and performance measurement is covered, both in existing product lines and new product-launch activities.

MARK 486 ***Product Management*** (3 credits)
Prerequisite: MARK 350 or COMM 224. In addition to analysing product cycles and their characteristics and strategies which relate to each stage, this course delves into some of the more practical aspects of product policy-setting strategy formulation of the analysis, development, and execution of marketing programmes for new and existing products. This course should make the student familiar with one or more product management operations through case discussions and/or field studies.

MARK 487 ***International Transportation and Distribution*** (3 credits)
Prerequisite: MARK 350 or COMM 224; DESC 244 or COMM 215. The objective of this course is to provide the student with an overview of international transportation and physical distribution marketing strategies. The course deals with matters such as the international flow of goods and people, the different international transportation modes and available equipment, physical distribution logistics, advances in transportation, distribution and communication technology which result in lower costs and time efficiency, intermodal competition and cooperation, government's roles in international transport, the international transportation regulatory environment, and international transportation facilitators such as freight forwarders, customs brokers, and documentation.

MARK 488 ***Passenger Transportation*** (3 credits)
Prerequisite: FINA 214 or COMM 308; MARK 350 or COMM 224. The object of this course is to make students aware that within the overall field of transportation an important segment deals with passengers. Through the use of lectures, case studies, and project presentations, the student becomes familiar with the concepts related to this field.

MARK 490 ***Marketing Policy*** (3 credits)
Prerequisite: MARK 213, 350 or COMM 224; and 12 additional credits in Marketing courses. A capstone course in marketing, utilizing readings, projects, and selected case studies requiring the student to incorporate concepts and techniques of previous Marketing courses in determining marketing policy.
NOTE A/See §200.2

MARK 491 ***Special Topics Seminar*** (3 credits)
Prerequisite: Written permission of the Department. This seminar is an inquiry into various selected topics which vary from year to year. Students repeating MARK 491 register for credits under MARK 492. *NOTE A/See §200.2*
NOTE: Specific topics for this course and prerequisites relevant in each case will be stated in the Undergraduate Class Schedule.

MARK 492 ***(also listed as IBUS 492) Cross-Cultural Communications and Management*** (3 credits)
Prerequisite: MARK 462 or IBUS 462. This course deals with the multicultural dimensions of international business operations. The objective is to develop Canadian managerial skills for effective performance in an international setting. Topics to be covered include international negotiations, management of multicultural personnel, cross-cultural consumer behaviour profile, cross-cultural communication, and other cultural aspects of marketing strategy.
NOTE: Students who have received credit for IBUS 492 may not take this course for credit.

61.110 TRANSPORTATION AND DISTRIBUTION MANAGEMENT

Programme

12 Minor in Transportation and Distribution Management
6 MARK 351; MANA 480
6 DESC 451; MARK 468, 485, 487, 488; ECON 495
NOTE: This Minor is available to Commerce and Administration students only.

61.120 ADMINISTRATION

Courses

ADMI 201 ***Introduction to Administration (Administered by the Finance Department)*** (3 credits)
This course is intended to develop a basic understanding of the role of administration in our society. The course includes a survey of different forms of organizations, their social and legal responsibilities, and how they function to achieve their goals.
NOTE: Commerce and Administration students may not take this course for credit.

ADMI 202 ***Perspective on Business (Administered by the Finance Department)*** (3 credits)
This course is designed to review the historical development of business (in Canada in particular) and to examine the relationships between the firm (management) and the owners, the employees, the customers, the government, and the community. Further, it studies some of the problems facing Canadian business today: the dehumanizing aspect, pollution problems, large vs. small firms, foreign ownership, competition, etc.
NOTE: Commerce and Administration students may not take this course for credit.

61.130 BUSINESS COMMUNICATIONS

Course

BUSC 300 ***Business Communications*** (3 credits)
This course focuses on the principles and techniques of clear, concise, and effective, written and oral communication, especially as they apply to business. The formal, grammatical, and stylistic elements of written and oral business communication are emphasized. Students are also instructed in and experience the use of audiovisual means of communication.

61.140 BUSINESS STUDIES

CERTIFICATE IN BUSINESS STUDIES

This programme is not open to students registered in a programme leading to the undergraduate degree of Commerce or Administration.

Students may transfer into the Certificate programme up to 12 credits earned in an incomplete degree or Certificate programme or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Admission Requirements

a) Diploma of Collegial Studies or the equivalent; MATH 208 and 209 or the equivalent
or
b) Mature students: MATH 206, 208, 209 or the equivalent.

Programme

30 Certificate in Business Studies
18 ACCO 213*; ECON 201*; FINA 214*; MANA 266; MARK 213; DESC 243*
12 Chosen from ACCO 218; ECON 203; FINA 315; MARK 350; DESC 222, DESC 244

**Please note that ACCO 213; DESC 243; ECON 201 or 203 previously or concurrently are the prerequisites for FINA 214.*

MINOR IN BUSINESS STUDIES

NOTE: This programme is not open to students registered in a programme leading to the undergraduate degree of Commerce or Administration.

Admission Requirements

MATH 208 and 209 or equivalent courses.

Programme

30 Minor in Business Studies
18 ACCO 213*; ECON 201*; FINA 214*; MANA 266; MARK 213; DESC 243*
12 Chosen from ACCO 218; ECON 203; FINA 315; MARK 350; DESC 222, DESC 244

**Please note that ACCO 213; DESC 243; ECON 201 or 203 previously or concurrently are the prerequisites for FINA 214.*

61.150 COMPUTER SCIENCE

For a major in Management Information Systems see §61.50

61.160 SPECIAL CERTIFICATE PROGRAMMES

There are many organizations within the business community designed to serve the needs of people working in specialized areas of business. These organizations recognize that the educational qualifications of those seeking membership must be continually upgraded. Therefore, they sponsor an Academic Certificate which may be obtained through correspondence courses, or through a lecture programme.

The Faculty of Commerce and Administration cooperates with these business organizations by permitting personnel to register as Visiting students, and to take courses leading to a certificate to be awarded by the organization concerned.

Students must comply with the University regulations regarding dates of application and Visiting Commerce student entrance requirements as outlined in the Academic Calendar §11. In addition, they must meet the requirements of the specific organization.

The credit courses taken may be applied towards the BComm degree, provided the student meets the admission requirements and wishes to transfer from Visiting Commerce status to undergraduate status after completing a Certificate programme. Students are advised that they must meet the BComm curriculum requirements in force at the date of transfer.

Each Certificate programme has one or more special courses required to complete the programme. These courses do not carry credit towards an undergraduate degree and are designated as non-credit courses.

Students interested in the following Certificate programmes may obtain details of required courses from the organization concerned:

The American Marketing Association (Montréal Chapter)
Institute of Canadian Bankers
The Insurance Institute of Canada
The Trust Companies Institute of Canada
Professional Secretaries International (CPS)
Canadian Institute of Management

61.170 SPECIAL PROGRAMMES IN ACCOUNTANCY

The three professional organizations listed below recognize certain Concordia University courses for course exemptions or standing in their professional designation programmes.

L'ORDRE DES COMPTABLES AGRÉÉS DU QUÉBEC: Chartered Accountant (CA)
The Faculty of Commerce and Administration offers a Diploma in Accountancy which has been approved by the Order of Chartered Accountants of Québec. Entry into the programme normally requires an undergraduate degree in Commerce, and a Major in Accountancy with high academic standing. Applicants lacking an appropriate pattern of undergraduate work will be required to complete successfully certain qualifying courses, as assigned by the director of the Diploma programme. For further details, refer to the Concordia University School of Graduate Studies Calendar.

LA CORPORATION PROFESSIONNELLE DES COMPTABLES EN MANAGEMENT ACCRÉDITÉS DU QUÉBEC: Certified Management Accountant (CMA)
Students who wish to follow the CMA programme must register with La Corporation professionnelle des comptables en management accrédités du Québec, 715 Square Victoria 3rd Floor, Montréal, Québec, H2Y 2H7, (514) 849-1155 / (800) 263-5390. The list of courses comprising the CMA programme is shown below:

Commerce 217	Financial Accounting
Commerce 305	Managerial Accounting
Accountancy 323	Intermediate Accounting I
Accountancy 326	Intermediate Accounting II
Accountancy 303	Cost and Management Accounting
Accountancy 414	Accounting Information Systems
Accountancy 441	Taxation I
Accountancy 442	Taxation II
Accountancy 335	Advanced Accounting (Note 3)
Accountancy 422	Advanced Management Accounting
Accountancy 429	Auditing Concepts
Accountancy 470	Special Topics in Accounting (Note 3)
Commerce 315	Business Law and Ethics
Management 476	Business Law II
Commerce 222	Organizational Behaviour and Theory
Commerce 220	Markets
Commerce 301	Management Information Systems
Commerce 215	Business Statistics
Commerce 308	Finance
Commerce 310	Strategy and Competition

NOTES:

1. *This equivalence table is subject to amendment by the Corporation.*
2. *Students taking University courses must satisfy the necessary prerequisite courses.*
3. *The Final Accreditation Examinations of the Society of Management Accountants of Canada are mandatory. Coaching seminars for these courses are encouraged prior to writing the Final Accreditation Examinations. A student may not sit for these examinations until all other Corporation courses or their equivalents have been successfully completed.*
4. *Students completing the BComm degree programme with the following sequence of courses will be eligible to write the entrance exam, leading to the Professional Programme of the Corporation:*

ACCO 303; ACCO 323; ACCO 326; ACCO 335; ACCO 414; ACCO 422; ACCO 429; ACCO 441; ACCO 442; ACCO 470

5. *Prospective CMA students should note that the above sequence of courses is a prerequisite to the new CMA programme, which commences with an Entrance Examination (held in June each year). It is necessary to sit the Entrance Examination in order to take part in a 24-month Professional Programme. The Programme consists of work experience, independent study, group and residential sessions, together with a Final Examination. All candidates for the Entrance Examination must be registered student members of the Corporation.*

LA CORPORATION PROFESSIONNELLE DES COMPTABLES GÉNÉRAUX LICENCIÉS DU QUÉBEC: Certified General Accountant (CGA)

Students who wish to follow the CGA programme must register with the Professional Corporation of Certified General Accountants of Québec located at 445 boulevard St-Laurent Bureau 450, Montréal, Québec, H2Y 2Y7, (514) 861-1823.

The list of courses comprising the CGA Academic Programme is shown below:

Commerce 217	Financial Accounting
Commerce 305	Managerial Accounting
Accountancy 323/326	Intermediate Accounting I and II
Accountancy 303	Cost and Management Accounting
Accountancy 414	Accounting Information Systems
Accountancy 441/442 (4)	Taxation I and II
Accountancy 335 (1)	Advanced Accounting
Accountancy 410 (1)	Specialized Accounting
Accountancy 461 (1)	Accounting Theory I
Accountancy 471 (4)	Seminar in Taxation
Accountancy 429/432 (2)	Auditing Concepts/Financial Auditing
Commerce 220/308 (3)	Markets/Finance
Commerce 301	Management Information Systems
Commerce 215	Business Statistics
Commerce 222	Organizational Behaviour and Theory
Commerce 310	Strategy and Competition
Commerce 315	Business Law and Ethics
Management 478	Company Law
Economics 201/203	Introduction to Micro/Macro Economics

(1) Prerequisite to the Financial Accounting 4 (FA-4) examination
(2) Prerequisite to the Auditing 2 (AU-2) examination
(3) Prerequisite to the Finance 556 examination or Finance 2 (FN-2) examination
(4) Prerequisite to the Taxation 509 examination or Taxation 2 (TX-2) examination
*(5) Prerequisite to the Auditing 587 examination or Management Auditing 1 (MU-1) examination**

NOTE: The listing above is subject to amendment. Please communicate with the programme coordinator.
NOTE: Registration as a Visiting Commerce student gives you priority in your choice of courses.
**Additional prerequisite courses for the Auditing 587 examination or MU-1 examination must be taken in another university.*

faculty of engineering and computer science

71.10 ***FACULTY OF ENGINEERING AND COMPUTER SCIENCE***
- **71.10.1** Programmes Offered
- **71.10.2** Admission Requirements
- **71.10.3** Academic Regulations
- **71.10.4** Registration Regulations
- **71.10.5** Graduation Regulations
- **71.10.6** Availability of Programmes
- **71.10.7** Course Sequences
- **71.10.8** The Co-operative Format

71.20 ***BENG***
- **71.20.1** Curriculum for the Degree of BEng
- **71.20.2** Extended Credit Programme
- **71.20.3** Accreditation by the Canadian Council of Professional Engineers
- **71.20.4** Membership in the Order of Engineers of Québec
- **71.20.5** Degree Requirements

71.30 ***CENTRE FOR BUILDING STUDIES***
- **71.30.1** Course Requirements
- **71.30.2** The Co-operative Format

71.40 ***DEPARTMENT OF CIVIL ENGINEERING***
- **71.40.1** Course Requirements

71.50 ***DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING***
- **71.50.1** Course Requirements (BEng in Electrical Engineering)
- **71.50.2** Course Requirements (BEng in Computer Engineering)

71.60 ***DEPARTMENT OF MECHANICAL ENGINEERING***
- **71.60.1** Course Requirements (BEng in Mechanical Engineering)
- **71.60.2** Course Requirements (BEng in Industrial Engineering)

71.70 ***COURSE DESCRIPTIONS***

71.80 ***DEPARTMENT OF COMPUTER SCIENCE***
- **71.80.1** Curriculum for the Degree of BCompSc
- **71.80.2** Degree Requirements
- **71.80.3** Extended Credit Programme
- **71.80.4** Honours Programme
- **71.80.5** Minor in Computer Science
- **71.80.6** Programmes in Management Information Systems
- **71.80.7** The Co-operative Format
- **71.80.8** Course Descriptions

71.90 ***CERTIFICATE PROGRAMME IN QUALITY CONTROL***
- **71.90.1** Curriculum for the Certificate in Quality Control
- **71.90.2** Academic Regulations
- **71.90.3** Course Requirements

section 71

71 FACULTY OF ENGINEERING AND COMPUTER SCIENCE

Dean
DONAT J. TADDEO

Associate Dean, Student Affairs
GEORGIOS H. VATISTAS

Associate Dean, Strategic Planning
STANLEY J. KUBINA

Associate Dean, Research
CHING Y. SUEN

Associate Dean, Academic and Administrative Affairs
THEODORE STATHOPOULOS

Special Advisor to the Dean, Communication and Equity Affairs
CORINNE JETTÉ

Director, Centre for Building Studies
PAUL P. FAZIO

Chair, Department of Civil Engineering
MAMDOUH M. EL-BADRY

Chair, Department of Electrical and Computer Engineering
J. CHARLES GIGUÈRE

Chair, Department of Mechanical Engineering
V. SUONG HOA

Chair, Department of Computer Science
CLEMENT LAM

Location

Sir George Williams Campus
J.W. McConnell Building, Room: LB 1001
(514) 848-3056

Objectives

By dedicating itself to programme excellence, the Faculty seeks to prepare its graduates not only to practice their professions well into the twenty-first century but also to participate, in national and international affairs, as good citizens with a social conscience. It is equally dedicated to the advancement of knowledge through research and graduate education, and to the development of the professions of engineering and computer science. The Faculty strives to provide an environment of equal opportunity, collegiality, and lively intellectual debate for all members of its community.

71.10 FACULTY OF ENGINEERING AND COMPUTER SCIENCE

71.10.1 Programmes Offered

The following programmes are offered in the Faculty of Engineering:

1. BEng degrees in Building*, Civil, Computer, Electrical, Industrial, and Mechanical Engineering.
2. BCompSc degree.
3. Minor in Computer Science.
4. Certificate in Quality Control.

The requirements for the programmes are different, and the appropriate section in the following pages must be consulted for each.
*The BEng degree in Building Engineering may be combined with a Master/Magisteriate degree in the same discipline.

71.10.2 Admission Requirements

General admission requirements are listed in §13.
In addition, the following specific requirements exist for the various programmes. Applicants should specify their choice of programme on their application.
Students entering the Faculty of Engineering and Computer Science are presumed to have acquired some familiarity with computers and programming, either through a course or through time spent working with a personal or other computer.

APPLICANTS FROM QUÉBEC INSTITUTIONS
Successful completion of a two-year pre-university CEGEP programme is required, including the specific courses in the appropriate profile, as follows:

1. **BEng (all programmes)**
   BCompSc (all options except Information Systems)

   CEGEP Profile 10.10
   Mathematics — 103, 105, 203
   Physics — 101, 201, 301
   Chemistry — 101, 201
   Biology — 301

2. **BCompSc (Information Systems Option)**
   Certificate in Quality Control
   Minor in Computer Science

   CEGEP Profile 10.12
   Mathematics — 103, 105, 203

Applications from graduates of CEGEP technology programmes will also be considered. Programme requirements for successful applicants will be determined on an individual basis.

APPLICANTS FROM OUTSIDE QUÉBEC
Academic qualifications presented by students applying from institutions outside Québec should be comparable to those expected of students applying from within Québec.
Where the pre-university education is shorter than in Québec, students may be considered for admission to the first year of the Extended Credit Programme. (See §13.4.2 to 13.4.6, §71.20.2, and 71.80.3)

MATURE ENTRY
Admission requirements are listed in §14.

71.10.3
Academic Regulations

Students should refer to the Academic Regulations of the University in §16.

Definitions
Assessable courses: *all record entries of courses* listed in this Concordia Calendar for which a grade point value is specified in §16.3.3. However, any course which is a requirement for admission to a programme offered by the Faculty of Engineering and Computer Science will not be counted unless specifically listed on the student's admission letter.
Dean's Office: appropriate member of the Dean's Office, normally the Associate Dean, Student Affairs.
Programme of Study: course requirements in effect at the time of the latest admission or re-admission to a programme, for example, BEng (Civil) or BCompSc (General Science) or Certificate in Quality Control, including modifications on an individual basis as specified or approved in writing by the Associate Dean's Office, or the Student Request Committee of Faculty Council.
Grade Points: as defined in §16.3.3 of this Calendar.
Weighted Grade Point Average (WGPA): as defined in §16.3.10 of this Calendar. A grade obtained as a result of writing a supplemental examination and/or completing the work for a course graded "INC" or "MED" is included as part of the assessment period in which it is recorded.
Academic year: a period of time which includes a Summer and its subsequent Fall and Winter terms.

Objectives
The objectives of these regulations are:
a) to ensure that the Faculty can certify that all of its graduates are qualified to enter their profession, and
b) to ensure that students can, with the assistance or intervention of the Faculty, assess themselves objectively and plan programmes of study designed to meet their individual needs.

Grading System
See §16.3.3 for the Concordia grading system.
NOTE: Although a "C-" grade is designated as Satisfactory, a weighted grade point average of 2.00 is required for acceptable standing in the Faculty of Engineering and Computer Science.

Regulations
1. Students' standings are assessed at the end of each academic year providing they have registered for at least 12 credits subsequent to their previous assessment, or in the case of a first assessment, subsequent to their admission to a programme of study.
   Standings of students who have attempted less than 12 credits since their last assessment are assessed as follows:
a) The standings of potential graduates are determined on the basis that these credits constitute an extension of the last assessment period.
b) The standings of other students are determined at the end of the academic year in which they have attempted a total of at least 12 credits since their last assessment.
2. Students' standings are determined according to the following criteria.

Acceptable Standing:
A WGPA of at least 2.00 for the assessment period.
Students in acceptable standing may proceed subject to the following conditions: any failing grade must be cleared by passing the supplemental examination, if one exists, and/or completing the work for the course or by repeating the failed course or in the case of an elective, by replacing the failed course by an alternative within the same group of electives. Any variation must be approved by the Associate Dean's Office.

Conditional Standing:
A WGPA of at least 1.50 but less than 2.00 for the assessment period.
Students in conditional standing may not write supplemental examinations, but may proceed subject to the following conditions.

a) They must successfully repeat all courses in which failing grades were obtained, or replace them by alternatives approved by the appropriate member of the Associate Dean's Office in consultation with the student's Department.
b) They must repeat or replace by approved alternatives at least one-half of those courses in which they obtained grades in the "D" range. The specific courses to be repeated will be determined by the appropriate member of the Associate Dean's Office in consultation with the student's Department.
c) Courses to be taken may be specified by the Associate Dean's Office. In no case will the number exceed five per term for full-time students and two per term for part-time students.
d) They must obtain acceptable standing at the time of their next assessment.

Failed Standing:
Failure to meet the criteria for acceptable or conditional standing, or conditional standing over two consecutive assessments.
Failed students may not write supplemental examinations: they are subject to the following regulations.

1. Failed students who are not subject to regulation 2 below may apply for readmission through the Dean's Office of the Faculty to which they wish to be readmitted. If readmitted, they will be placed on academic probation. They must return to acceptable standing at the time of their next assessment. Other conditions will be determined at the time of readmission.
2. Students who are in failed standing for a second time will be dismissed from the University. In subsequent years, should they wish to return to university studies, they must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.

Availability of Supplemental Examinations

1. Supplemental examinations are available only to students in acceptable standing who have an "F" grade in a course for which such an examination is offered.
2. Except as specified in 4 below, or otherwise approved by the Faculty Council for individual courses, supplemental examinations are available in all 200- and 300-level courses offered by the Faculty.
3. Supplemental examinations are available in those 400-level courses offered by the Faculty for which:

a) it is required that a student pass the final examination as a condition for passing the course, or
b) the final examination contributes at least 50% of the mark producing the final grade for the course.

4. Supplemental examinations are not offered in Computer Science courses at the 200 level other than COMP 201 and COMP 212.

71.10.4 Registration Regulations

1. Students (other than failed students) whose registration in the programme has lapsed for 30 consecutive months or more must apply to the Associate Dean's Office in order to have their curriculum obligations re-evaluated as per paragraph 2 of §16.2.1 of this Calendar. Permission to register will be granted only upon presentation of the results of this re-evaluation.
2. The maximum regular session course load for full-time students in the regular programmes is three more than one-third of the total credits for their particular option as specified in subsequent sections.
3. The maximum regular session course load for full-time students in the Extended Credit and Mature Student programmes is 30 credits until they have completed all the courses required beyond those specified for their particular option in subsequent sections.
4. The fall- and winter-term course loads of full-time students may be unbalanced by up to three credits without permission; further differences between the two terms require the permission of the appropriate Associate Dean, Student Affairs or delegate.
5. Except for students registered for the co-operative format, the maximum load in a Summer Session is eight credits, with no more than four and a half credits in either of its terms.

71.10.5 Graduation Regulations

Students must be in acceptable standing and satisfy the requirements specified for the academic programme in which they were admitted. The structure and courses of the programme may change in the period between admission and graduation due to curriculum development, but students remaining in acceptable standing are not required to complete more credits than were required at the time they were admitted.
The maximum numbers of credits obtained as an Independent student which may be transferred into programmes offered by the Faculty of Engineering and Computer Science are as follows:

BEng and BCompSc: 30
Certificate in Quality Control: 15

71.10.6 Availability of Programmes

Full-time students in the Engineering programme will choose a six- or eight-term sequence. Due to the heavy workload involved, six-term sequences are only recommended for the exceptional student. In general, introductory level courses are offered in both day and evening. Subject to the Registration Regulations in §71.10.4 above, a student may register on a part-time basis. Further information on sequencing may be found in the Undergraduate Programme Guide issued by the Office of the Associate Dean.

71.10.7 Course Sequences

The Undergraduate Programme Guide specifies course sequences for the BEng and BCompSc programmes, including their Mature Entry and Extended Credit programmes.

71.10.8 The Co-operative Format

A limited number of high ranking students entering the first year of the regular programme leading to the BCompSc degree and the BEng degree in Building Engineering are permitted to undertake their studies in the co-operative format in conjunction with the Institute for Co-operative Education. See §24.
The academic content is identical to that of the regular programmes; however, in order to continue their studies in the co-operative format in the Faculty of Engineering and Computer Science, or to graduate from one of its programmes as Members of the Institute for Co-operative Education, students must:

(i) attain an annual WGPA of at least 2.50;
(ii) maintain a cumulative grade point average (CGPA) * of at least 2.70 after their first year of study in their programme;
(iii) be assigned a pass for each work term report.

For additional information, please refer to §24 and §71.30 (Building Engineering) or §71.80 (Computer Science).
* The CGPA is calculated over all courses attempted since admission to the programme in the manner described in §16.3.10 for the WGPA.

71.20 BENG

71.20.1 Curriculum for the Degree of BEng

The University offers programmes leading to the degree of BEng in the fields of Building, Civil, Computer, Electrical, Industrial, and Mechanical Engineering. Students enrolled in the BEng programme in Building Engineering may, after the completion of all but one of their 200- and 300-level courses, apply through the Associate Dean to enter a combined degree programme leading to the joint award of an undergraduate and a graduate degree in this field.
The BEng degree requires completion of a minimum of 115.5 to 118.5 credits depending on the programme chosen. Course requirements comprise a group of required courses with a group of elective courses which allow students to select part of their programme to provide some depth in an area of specialization according to their particular interests, or breadth in the general field of their chosen discipline.
Students may register for courses beyond the introductory 200 level only if they have completed, or will have completed in the current academic year, all of the 200-level courses required for their programme. They must complete the requirements for their degree in a maximum of four academic years after that in which they first register for courses beyond the 200 level. Students failing to satisfy this requirement are withdrawn from the programme; they may be granted permission by the Associate Dean's Office to continue in the programme for one additional year provided they are eligible to apply for readmission according to the regulations in §71.10.3. Students who fail a fall-term 200-level course which is inherent to their discipline are required to repeat it in the immediate subsequent Winter Term. In addition, students obtaining grades in the "D" range for such courses may choose to repeat them. The courses to which this regulation applies are specified annually by discipline in the Undergraduate Programme Guide.
In their final undergraduate year, students with high standing may apply for permission through the Associate Dean's Office to register for a limited number of graduate courses offered by the Faculty in

lieu of some courses in the undergraduate programme.

Successful completion of a BEng programme requires hard work and considerable dedication on the part of each student. Courses are presented with the expectation of an average of about two hours of "outside" work for each lecture hour and about one-half hour of "outside" work for each hour spent in the laboratory for all programmes of study.

71.20.2 Extended Credit Programme

Students admitted to an Extended Credit Programme under the provisions of §13.3.2 or 13.8.1 must successfully complete the requirements of a specific programme, as set out in §71.30 to 71.60, plus the following courses:

a) Building, Civil, Industrial, and Mechanical Engineering:
MATH 202[3], 203[3], 204[3], 205[3]
PHYS 204[3], 205[3], 224[1], 225[1]
CHEM 205[3]
COMP 201[3]
Six credits chosen from courses in the humanities and social sciences.

b) Electrical and Computer Engineering:
The courses specified in a), plus PHYS 206[3]

71.20.3 Accreditation by the Canadian Council of Professional Engineers

The baccalaureate degree programmes in Building, Civil, Computer, Electrical, Industrial and Mechanical Engineering are currently accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers. The Board has recommended to the Constituent Associations of CCPE that graduation from the above curricula be considered as sufficient academic qualification for purposes of registration in all provinces and territories in Canada.

71.20.4 Membership in the Order of Engineers of Québec

The Ordre des ingénieurs du Québec (O.I.Q.) currently admits graduates of the BEng curricula in Building, Civil, Computer, Electrical, Industrial and Mechanical Engineering, as members according to the Engineers Act and the O.I.Q. By-Laws, providing applicants can complete the French language requirements.

Québec law requires that candidates seeking admission to provincially-recognized Québec professional corporations (such as the Ordre des ingénieurs du Québec) possess an appropriate knowledge of the French language.

Such knowledge is deemed appropriate when candidates can demonstrate either:

a) that they have had three years of schooling in the French language on a full-time basis, at or above the secondary school level, **or**

b) that they have taken and passed **one of the following** courses at the Secondary IV or V level: Français 412, 416, 422, 426, 432, 512, 522, 526, 532, 542, 552 (courses that have the same numbers and are entitled French are not acceptable).

Otherwise, candidates must pass the test prescribed by the Office de la langue française. Information on this testing programme of the Office de la langue française may be obtained by writing to: Office de la langue française, 800 Place Victoria, 13[e] étage, C.P. 316, Montréal, Québec, H4Z 1G8, (514) 873-8361.

71.20.5 Degree Requirements

To be recommended for the degree of BEng, students must satisfactorily complete the courses of the Engineering Core as well as those specified for their particular programme in subsequent sections in accordance with the graduation requirements in §71.10.5.

Engineering Core

		Credits
EMAT 212(a)	Calculus and Differential Equations	3.00
EMAT 232(a)	Matrices and Advanced Calculus	3.00
EMAT 391	Numerical Methods in Engineering	3.00
ENCS 281(a)	Technical Writing	2.00
ENGR 211(a)	Technical Drawing	2.00
ENGR 273(a)	Basic Circuit Analysis	3.75
ENGR 371	Probability and Introduction to Random Processes in Engineering	3.00
ENGR 402	Engineering Law	1.50
ENGR 410(b)	Technical Report	1.50
	Social Aspects of Engineering electives	6.00
		28.75

Social Aspects of Engineering (c):

ENGR 491	Engineers and Society	3.00
ENGR 492	Historical Impact of Technology on Society	3.00
ENGR 493	Engineering, Resources and Environment	3.00
ENGR 494	Effect of Technology on the Person	3.00
ENGR 495	Technology Assessment and Control	3.00
ENGR 496	Science Policy and Engineering Innovation	3.00
ENGR 497	The Management of Transition to an Information Society	3.00

NOTES:

(a) Offered in both day and evening.

(b) To be submitted at the beginning of the academic year in which the student expects to graduate.

(c) Students in Building Engineering must successfully complete BLDG 481 as part of the six-credit requirement. (For all students, three of these six credits may be replaced by a specified course or courses in French, or by other non-technical courses subject to the approval of the Associate Dean. A list of such courses is available from the Office of the Associate Dean.)

71.30 CENTRE FOR BUILDING STUDIES

Faculty

Director
PAUL P. FAZIO, *Professor*

Associate Director
KINH HA-HUY, *Professor*

Professors
DOREL FELDMAN
RICHARD WILLIAM GUY
OSAMA MOSELHI
THEODORE STATHOPOULOS

Professor Emeritus
CEDRIC MARSH

Associate Professors
SABAH ALKASS
ANDREAS K. ATHIENITIS
CLAUDE BÉDARD
FARIBORZ HAGHIGHAT
MAHAMMED ZAHEERUDDIN
RADU ZMEUREANU

Assistant Professors
KRISHNAN GOWRI
S. REDDY MALLIDI
HANQING WU

Lecturer
DOMINIQUE DEROME

Adjunct Associate Professor
R. EL-DIASTY

Adjunct Assistant Professors
APPUPILLAI BASKARAN
M. LACASSE
PATRICK SAATHOFF

Location

Sir George Williams Campus
Centre for Building Studies, Room: BE 341
(514) 848-3200

Objectives

Building Engineering, as a discipline, encompasses the body of knowledge which pertains to all phases in the life-cycle of a constructed facility, namely conception, planning, design, construction, operation, and disposal.
Concordia has a unique undergraduate programme leading to a BEng in Building Engineering designed to meet the needs of the construction industry for engineers familiar with the overall design of built facilities.
In addition to the basic engineering sciences, the programme emphasizes the fundamentals of building materials, structural analysis and design, building services (acoustical, heating, lighting, air conditioning), economics, and project management. The student also has available certain electives which will be of use in the design of various phases of a building.
Students who complete all but one of their 200- and 300-level courses with a sufficiently high standing may apply through the Associate Dean, Student Affairs to enter a combined programme leading to the joint award of both a BEng and an MEng degree in Building Engineering. It is expected that those who aspire to leadership roles within the building industry will enter such a combined programme. The combined programme requires a further 12 months of full-time study, after which graduates will not only have obtained further grounding in the basics, but will also have specialized in one of four branches: Building Science, Building Environment, Building Structures, Construction Management. For details of the graduate component, refer to the School of Graduate Studies Calendar.

71.30.1 Course Requirements

The programme in Building Engineering consists of the Engineering Core, the Building Engineering Core, and a further 12 elective credits chosen from a specified group of courses. The normal length of the programme is 116.50 credits.

Engineering Core (28.75 credits)
See §71.20.5. Note that students in the BEng (Bldg) programme must replace one of the required Social Aspects courses with BLDG 481.

Building Engineering Core

		Credits
EMAT 311	Transform Calculus and Partial Differential Equations	3.00
ENGR 242*	Statics	3.00
ENGR 243*	Dynamics	3.00
ENGR 244*	Mechanics of Materials	3.75

ENGR 251*	Thermodynamics I	3.00
ENGR 342	Structural Analysis I	2.00
ENGR 343	Structural Analysis II	3.00
ENGR 344	Structural Design I	3.00
ENGR 345	Structural Design II	3.00
ENGR 361	Fluid Mechanics I	3.00
ENGR 451	Construction Engineering	3.00
BLDG 211*	Building Engineering Drawing	2.00
BLDG 341	Building Engineering Systems	3.00
BLDG 363	Building Science I	4.00
BLDG 364	Building Science II	4.00
BLDG 371	Building Service Systems	3.50
BLDG 401	Building Economics	3.00
BLDG 461	Building Enclosure Design	3.00
BLDG 471	HVAC System Design	4.00
BLDG 476	Thermal Analysis of Buildings	3.00
CIVI 271**	Surveying	3.00
CIVI 321	Engineering Materials	3.75
CIVI 431	Soil Mechanics	3.75
COMP 212*	FORTRAN for Engineers and Scientists	3.00
		75.75

* Offered in both day and evening.
** Summer school to be taken before entering second year of BEng programme.

Elective Courses
A student must choose a minimum of 12 credits from the following list of elective courses.

		Credits
ENGR 452	Matrix Analysis of Structures	3.00
ENGR 455	Introduction to Structural Dynamics	3.00
BLDG 459	Computer-Aided Building Design	3.00
BLDG 462	Modern Building Materials	3.00
BLDG 465	Fire and Smoke Control in Buildings	3.00
BLDG 472	Building Energy Conservation Technologies	3.00
BLDG 473	Building Acoustics	3.00
BLDG 474	Building Illumination	3.00
BLDG 475	Indoor Air Quality	3.00
BLDG 491	Labour and Industrial Relations in Construction	3.00
BLDG 492	Construction Processes	3.00
BLDG 493	Legal Issues in Construction	3.00
BLDG 498	Topics in Building Engineering	3.00
CIVI 435	Foundation Design	3.50
CIVI 453	Design of Reinforced Concrete Structures	3.50
CIVI 454	Design of Steel Structures	3.50

71.30.2
The Co-operative Format

Director
SABAH ALKASS, *Associate Professor*

Students entering the programme leading to the BEng degree in Building Engineering may request permission to undertake their studies in the co-op format by following the application procedure specified in §24.
Academic content is identical to that of the regular programme, but seven Study terms are interspersed with four Work terms. Students in Building Engineering will complete between 15 and 18 credits in each Study Term to obtain the required 116.5 credits for a BEng (Building).
Students are supervised personally and must meet the requirements specified in §71.10.8 in order to continue their studies in the co-op format.
Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Building Engineering co-op committee, which includes the student's advisers.
Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

71.40 DEPARTMENT OF CIVIL ENGINEERING

Faculty

Chair
MAMDOUH M. EL-BADRY, *Assistant Professor*

Professors
ADEL M. HANNA
OSCAR A. PEKAU
HORMOZ B. POOROOSHASB
AMRUTHUR S. RAMAMURTHY
ZENON A. ZIELINSKI

Professor Emeritus
MICHAEL S. TROITSKY

Associate Professors
B. ASHTAKALA
CARL GOLDMAN

Assistant Professors
JOHN CAMPANELLI
JEAN DROLET
MARIA ELEKTOROWICZ

Adjunct Professor
CHUHAN ZHANG

Adjunct Associate Professors
V. GOCEVSKI
A.S. PALL
E. THIMMHARDY

Adjunct Assistant Professors
VINOD BATTA
SAFWAT IBRAHIM

Location

Sir George Williams Campus
Annex ER, Room: 303
(514) 848-7800

Department Objectives

Civil Engineering is concerned with the creation of systems of constructed facilities which play an important role in sound economic growth of society. It is also concerned with the development of technologies to combat pollution of air, water, and soil. Civil engineers are responsible for the design of foundations and superstructures of common structures such as buildings, bridges, dams, tunnels, wharves, as well as many unusual structures such as rocket installations, containment vessels for nuclear reactors, supports for radio telescopes, frameworks for aircraft. In addition, they are concerned with the engineering aspects of water resources; transportation facilities; planning metropolitan areas, and conducting and managing their public facilities. In dealing with environmental problems, civil engineers perform vital functions such as monitoring and controlling air, water, and soil quality, assessing the impact of technological changes on the environment, and developing innovative waste reduction technologies.

71.40.1 Course Requirements

The programme in Civil Engineering consists of the Engineering Core, the Civil Engineering Core, and one of the options described below. The normal length of the programme is 116.25 credits.

Engineering Core (28.75 credits)
See §71.20.5.

Civil Engineering Core

		Credits
EMAT 311	Transform Calculus and Partial Differential Equations	3.00
ENGR 242*	Statics	3.00
ENGR 243*	Dynamics	3.00
ENGR 244*	Mechanics of Materials	3.75
ENGR 251*	Thermodynamics I	3.00
ENGR 342	Structural Analysis I	2.00
ENGR 343	Structural Analysis II	3.00
ENGR 344	Structural Design I	3.00
ENGR 345	Structural Design II	3.00
ENGR 361	Fluid Mechanics I	3.00
ENGR 401	Engineering Economics and Management Principles	1.50
ENGR 451	Construction Engineering	3.00
CIVI 211*	Civil Engineering Drawing	2.00
CIVI 231*	Geology	2.75
CIVI 271**	Surveying	3.00
CIVI 321	Engineering Materials	3.75

CIVI 341	Civil Engineering Systems	3.00
CIVI 361	Introduction to Environmental Engineering	3.50
CIVI 372	Transportation Engineering	3.00
CIVI 381	Hydraulics	3.50
CIVI 382	Water and Waste-Water System Design	3.50
CIVI 431	Soil Mechanics	3.75
COMP 212*	FORTRAN for Engineers and Scientists	3.00
		69.00

*Offered in both day and evening.
**Summer school to be taken before entering second year of study in the BEng programme.

Option Course Requirements
Students must complete a minimum of 12.50 credits from one of Option A or Option B and with at least six further credits from either option. Option A is designed for students interested in careers in structural, geotechnical, and transportation engineering. Option B is tailored for students wishing to pursue careers in environmental engineering.

Option A

		Credits
ENGR 452	Matrix Analysis of Structures	3.00
ENGR 455	Introduction to Structural Dynamics	3.00
CIVI 435	Foundation Design	3.50
CIVI 437	Advanced Geotechnical Engineering	3.00
CIVI 453	Design of Reinforced Concrete Structures	3.50
CIVI 454	Design of Steel Structures	3.50
CIVI 471	Highway and Pavement Design	3.50
CIVI 474	Transportation Planning and Design	3.00

Option B

		Credits
CIVI 464	Environmental Impact Assessment	3.00
CIVI 465	Water Pollution and Control	3.50
CIVI 466	Engineering Aspects of Chemical and Biological Processes	3.00
CIVI 467	Air Pollution and Emission Control	3.00
CIVI 468	Waste Management	3.00
CIVI 469	Geo-Environmental Engineering	3.50
CIVI 483	Hydrology	3.50
CIVI 489	Computational Hydraulics	3.50

71.50 DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Faculty

Chair
J. CHARLES GIGUÈRE, *Associate Professor*

Professors
M. OMAIR AHMAD
ASIM J. AL-KHALILI
AHMED K. ELHAKEEM
JEREMIAH F. HAYES
THO LE-NGOC
RAJNIKANT V. PATEL
EUGENE I. PLOTKIN
V. RAMACHANDRAN
OTTO SCHWELB
K. THULASIRAMAN

Professor Emeritus
STANLEY J. KUBINA

Associate Professors
SERGE A. GRACOVETSKY
BAHER S. HAROUN
PRAVEEN K. JAIN
GEZA JOOS
KHASHAYAR KHORASANI
MUSTAFA K. MEHMET ALI
ROBERT PAKNYS
CHRISTOPHER W. TRUEMAN

Assistant Professors
MARC A. COMEAU
HERBERT H.J. HUM
S. KRISHNAN
LESLIE M. LANDSBERGER
WILLIAM E. LYNCH
RABIN RAUT

Adjunct Professors
VIJAY BHARGAVA
K.M. SUNDARA MURTHY
VIJAY SOOD
VICTOR R. STEFANOVIC

Adjunct Associate Professors
KAMAL AL–HADDAD
D. AL-KHALILI
ANADER BENYAMIN-SEEYAR
CHRISTIAN S. GARGOUR
MUMTAZ GAWARGY
MICHEL KADOCH
SERDAR KALAYCIOGLU
M.R. SOLEYMANI

Adjunct Assistant Professors
AMBRISH CHANDRA
MARIE-JOSÉE MONTPETIT
M. ANISUR RAHMAN
YOUSEF R. SHAYAN
YU-DONG YAO

Location

Sir George Williams Campus
Hall Building, Room: H 961
(514) 848–3100

Department Objectives

The Department of Electrical and Computer Engineering offers two distinct programmes, one leading to the BEng in **Electrical Engineering,** the other to the BEng in **Computer Engineering.**
Electrical Engineering is concerned with the conversion of energy from mechanical, thermal, nuclear, wind, and solar sources to electricity; the design of systems for the control, transmission, and transportation from the generating station to the consumer; and the design of converters that transform this energy back to forms that meet the needs of the user.
Computer Engineering, on the other hand, focuses more directly on the design and use of computing devices and systems for the processing, retrieval, and storage of information.
Great emphasis is placed on giving the student a solid foundation in mathematics, electrical and computer engineering fundamentals and design techniques so that they will be equipped both to contribute and to respond to a rapidly evolving technology. Of equal importance is the fostering of an awareness of the interaction of the profession and the society it serves, and of the ability to communicate effectively both with colleagues and with fellow citizens.

71.50.1 Course Requirements (BEng in Electrical Engineering)

The programme in Electrical Engineering consists of the Engineering Core, the Electrical Engineering Core shown below, and one of three elective options. The normal length of the programme is 116.25 credits.

Engineering Core (28.75 credits)
See §71.20.5.

Electrical Engineering Core

		Credits
EMAT 252	Complex Variables	3.00
EMAT 312	Laplace Transforms and Advanced Differential Equations	3.00
ENCS 245*	Mechanical Analysis	3.00
ENGR 274*	Modelling and Analysis of Physical Systems	3.75
ENGR 372	Fundamentals of Control Systems	3.75
ENGR 401	Engineering Economics and Management Principles	1.50
COEN 311	Computer Organization and Software	3.00
COEN 312	Digital Systems Design	3.75
ELEC 251*	Fundamentals of Applied Electromagnetics	3.00
ELEC 311	Electronics I	4.50
ELEC 312	Electronics II	4.50
ELEC 321	Introduction to Semiconductor Materials and Devices	3.00
ELEC 331	Electromechanics	3.75
ELEC 341	Linear Network Analysis	3.75
ELEC 351	Electromagnetic Waves and Guiding Structures	3.00
ELEC 401	Electrical Engineering Seminar	1.00
ELEC 461	Communication Circuits and Systems	3.75
COMP 212*	FORTRAN for Engineers and Scientists	3.00
		58.00

*Offered in both day and evening.

Technical Electives
Programme requirements include the completion of one of three options. Students may replace one course from within their option with a technical elective from another Electrical Engineering option. No special permission is required.

1. Electronics/Communications Option
Students must complete a minimum of 29.5 credits from:

		Credits
ENCS 454	Introduction to VLSI	4.00
ENCS 456	VLSI Process Technology	3.00
ENGR 471	Linear Systems	3.75
ENGR 472	System Optimization	3.75
ENGR 481	Engineering Project	4.00
COEN 240	Introduction to Computing Environment	1.00
COEN 412	Digital Electronics	3.75
COEN 414	Sequential Circuits	3.75
COEN 417	Microprocessor Systems	4.50
ELEC 411	Pulse and Waveform Generation	3.75
ELEC 421	Solid State Devices	3.75
ELEC 422	Design of Integrated Circuit Components	3.75
ELEC 441	Modern Filter Design	3.75
ELEC 442	Introduction to Digital Signal Processing	3.75
ELEC 453	Microwave Engineering	3.75
ELEC 454	Optical Electronics	3.75
ELEC 455	Acoustics	3.00
ELEC 456	Antennas	3.00
ELEC 462	Statistical and Digital Communications	3.75
ELEC 463	Telecommunication Networks	3.00
ELEC 471	Random Processes	3.00
ELEC 498	Topics in Electrical Engineering	3.00

2. Power Option
Students must complete:

		Credits
ELEC 431	Electrical Power Systems	3.75
ELEC 432	Control of Electrical Power Conversion Systems	3.75
ELEC 433	Static Power Converters	3.75

Students must also choose a minimum of 18.25 credits from:

ENGR 471	Linear Systems	3.75
ENGR 472	System Optimization	3.75
ENGR 473	Control System Design	3.75
ENGR 481	Engineering Project	4.00
COEN 240	Introduction to Computing Environment	1.00
COEN 412	Digital Electronics	3.75
COEN 414	Sequential Circuits	3.75
COEN 417	Microprocessor Systems	4.50
ELEC 498	Topics in Electrical Engineering	3.00

3. Systems Option
Students must complete:

ENGR 471	Linear Systems	3.75
ENGR 472	System Optimization	3.75

Students must also choose a minimum of 22 credits from:

ENCS 472	Robot Manipulators	3.75
ENGR 473	Control System Design	3.75
ENGR 481	Engineering Project	4.00
COEN 240	Introduction to Computing Environment	1.00
COEN 412	Digital Electronics	3.75
COEN 414	Sequential Circuits	3.75
COEN 417	Microprocessor Systems	4.50
ELEC 431	Electrical Power Systems	3.75
ELEC 432	Control of Electrical Power Conversion Systems	3.75
ELEC 442	Introduction to Digital Signal Processing	3.75
ELEC 462	Statistical and Digital Communications	3.75
ELEC 498	Topics in Electrical Engineering	3.00

71.50.2
Course Requirements (BEng in Computer Engineering)

The programme in Computer Engineering consists of the Engineering Core, the Computer Engineering Core, and a minimum of nine elective credits chosen from a specified group of courses. The normal length of the programme is 118.25 credits.

Engineering Core: (28.75 credits)
See §71.20.5

Computer Engineering Core

		Credits
EMAT 252	Complex Variables	3.00
EMAT 312	Laplace Transforms and Advanced Differential Equations	3.00
ENGR 274*	Modelling and Analysis of Physical Systems	3.75
ENGR 372	Fundamentals of Control Systems	3.75
ENGR 401	Engineering Economics and Management Principles	1.50
COEN 231**	Introduction to Discrete Mathematics	3.00
COEN 240	Introduction to Computing Environment	1.00
COEN 241*	Programming Methodology	3.00
COEN 290	Introduction to C++	1.00
COEN 311	Computer Organization and Software	3.00
COEN 312	Digital Systems Design	3.75
COEN 412	Digital Electronics	3.75
COEN 414	Sequential Circuits	3.75
COEN 416	Computer Architecture and Design	3.00
COEN 417	Microprocessor Systems	4.50
COEN 418	Real-Time System Design	4.50
COEN 431	Software Engineering	3.75
ELEC 311	Electronics I	4.50
ELEC 312	Electronics II	4.50
ELEC 341	Linear Network Analysis	3.75

ELEC 353	Basic Electromagnetics and Transmission Line Theory	3.00
ELEC 401	Electrical Engineering Seminar	1.00
ELEC 461	Communication Circuits and Systems	3.75
COMP 346	Operating Systems	4.00
COMP 352*	Data Structures and Algorithms	3.00
		80.50

*Offered in both day and evening.
**COMP 231 allowed as substitute.

Computer Engineering Electives (Minimum of nine credits)

		Credits
ENCS 245	Mechanical Analysis	3.00
ENCS 454	Introduction to VLSI	4.00
ENCS 455	Introduction to VLSI Architecture	4.00
ENCS 456	VLSI Process Technology	3.00
ENCS 471	Algorithmic Aspects of Robotics	3.00
ENCS 472	Robot Manipulators	3.75
ENGR 471	Linear Systems	3.75
ENGR 481	Engineering Project	4.00
COEN 498	Topics in Computer Engineering	3.00
ELEC 442	Introduction to Digital Signal Processing	3.75
ELEC 462	Statistical and Digital Communications	3.75
ELEC 463	Telecommunication Networks	3.00
ELEC 471	Random Processes	3.00
COMP 294	Language Laboratory — LISP	1.00
COMP 298	Language Laboratory — C	1.00
COMP 335	Introduction to Theoretical Computer Science	3.00
COMP 353	Files and Databases	4.00
COMP 442	Compiler Design	3.00
COMP 471	Computer Graphics	4.00
MANA 266	Foundations of Modern Management	3.00
MANA 340	Organizational Behaviour	3.00
MANA 442	Managerial Concepts	3.00

71.60 DEPARTMENT OF MECHANICAL ENGINEERING

Faculty

Chair
VAN SUONG HOA, *Professor*

Coordinator, Industrial Engineering Programme
AKIF ASIL BULGAK, *Associate Professor*

Professors
R.B. BHAT
ADOLF E. BLACH
RICHARD M.H. CHENG
W.G. HABASHI
TADEUSZ H. KREPEC
SUI LIN
HUGH J. MCQUEEN
M.O.M. OSMAN
SUBHASH RAKHEJA
GEORGIOS H. VATISTAS

Associate Professors
A.K. WAIZUDDIN AHMED
WAHID S. GHALY
GERARD J. GOUW
F. DOUGLAS HAMBLIN
KALMAN I. KRAKOW
VOJISLAV LATINOVIC
RAFIK A. NEEMEH
J. SVOBODA

Assistant Professors
SAMIR AMIOUNY
KUDRET DEMIRLI
ELIZA M. HASEGANU
RAMESH RAJAGOPALAN
XINRAN XIAO

Adjunct Professors
M. HELMI ATTIA
RAO V. DUKKIPATI
DAVID P. KENNY

Adjunct Associate Professors
G. ABDOU
GERALD BUSH
VIRENDRA JHA
THAI T. LUONG
H. MOUSTAPHA
A.D. NGO
MARC J. RICHARD
N. RYAN
T. VUKHANH
GARY WAGNER
CHUNG Y. WU

Adjunct Assistant Professors
PAUL-ÉMILE BOILEAU
XAVIER CYRIL
R. GANESAN
A. GEORGANTAS
GRANT GUEVREMONT
ASHOK KAUSHAL
N. KROUGLICOFF
I. STIHARU

Location

Sir George Williams Campus
Hall Building, Room: H 549
(514) 848-3131

Department Objectives

The Department of Mechanical Engineering offers two distinct programmes, one leading to the BEng in **Mechanical Engineering**, the other to the BEng in **Industrial Engineering**.

Mechanical Engineering is concerned with all forms of power generation (hydro-electric, steam, internal combustion, nuclear, jet rocket, and fuel cells), the design of mechanisms and machines, transportation systems, controls and automation, vibration analysis, environmental control (heating, ventilation, and refrigeration), materials handling, and precision measurement. The Mechanical Engineering curriculum consists of a combination of core courses with a series of technical electives that allow students to obtain some specialization in a particular area of the field depending on their interests and expected future professional activity. Four options are available: Thermo Fluid and Propulsion Engineering; Design and Manufacturing Engineering; Automation and Control Systems; and Vehicle Engineering.

Industrial Engineering is concerned with the design, organization, analysis, and integration of people and industrial systems components in order to achieve or enhance effectiveness. These components include whole machines, transportation and conveyance elements, physical plant, organizational frameworks, schedules, and budgets. The Industrial Engineering curriculum is therefore designed to give students the background needed to define and solve problems related to the conception, improvement, integration, and implementation of industrial systems.

71.60.1 Course Requirements (BEng in Mechanical Engineering)

The programme in Mechanical Engineering consists of the Engineering Core, the Mechanical Engineering Core, and option requirements as shown below. The normal length of the programme is 117.75 credits.

Engineering Core (28.75 credits)
See §71.20.5

Mechanical Engineering Core

		Credits
EMAT 311	Transform Calculus and Partial Differential Equations	3.00
ENGR 242*	Statics	3.00
ENGR 243*	Dynamics	3.00
ENGR 244*	Mechanics of Materials	3.75
ENGR 251*	Thermodynamics I	3.00
ENGR 274*	Modelling and Analysis of Physical Systems	3.75
ENGR 361	Fluid Mechanics I	3.00
ENGR 372	Fundamentals of Control Systems	3.75
ENGR 401	Engineering Economics and Management Principles	1.50
ELEC 318	Industrial Electronics	3.75
MECH 211*	Mechanical Engineering Drawing	2.00
MECH 221*	Materials Science	2.00
MECH 311	Manufacturing Processes	2.50
MECH 313	Machine Drawing and Design	3.00
MECH 321	Properties and Failure of Materials	3.50
MECH 341	Kinematics and Dynamics of Mechanisms and Manipulators	2.50
MECH 342	Theory of Machines	2.50
MECH 351	Thermodynamics II	3.75
MECH 352	Heat Transfer I	3.75
MECH 361	Fluid Mechanics II	3.75
MECH 373	Instrumentation and Measurements	3.75
MECH 411	Design and Analysis of Mechanical Components	2.50
MECH 441	Mechanical Engineering Design	3.00
COMP 212*	FORTRAN for Engineers and Scientists	3.00
		73.00

*Offered in both day and evening.

Option Requirements

Students in the Mechanical Engineering programme must complete at least 16 elective credits from one of options A, B, C, or D. Prior to registration for elective courses, students indicate their choice of option on a form available from the Department, which must be submitted to the Chair's office for approval *prior to March 15.*

1. Option A — Thermo Fluid and Propulsion

Students must complete a minimum of 16 credits from the following courses, including at least two of the three courses marked *.

		Credits
ENGR 473	Control System Design	3.75
ENGR 475	Process Dynamics and Control	3.75
ENGR 481	Engineering Project	4.00
ELEC 334	Electric Machinery	3.75
MECH 421	Mechanical Shaping of Metals, Plastics and Composites	3.75
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 423	Casting, Welding, Heat Treating, and Non-Destructive Testing	3.75
MECH 443	Mechanical Vibrations	3.75
MECH 446	Process Equipment Design	3.00
MECH 452*	Heat Transfer II	3.75
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 454	Vehicular Internal Combustion Engines	3.00
MECH 461*	Gas Dynamics	3.75
MECH 462*	Turbomachinery and Propulsion	3.00
MECH 464	Aerodynamics	3.00
MECH 465	Gas Turbine Design	3.75
MECH 471	Microprocessors and Applications	3.75
MECH 498	Topics in Mechanical Engineering	3.00

2. Option B — Design and Manufacturing

Students must complete a minimum of 16 credits from the following courses, including MECH 421 with at least two of the courses marked * and not more than one of those marked ®.

		Credits
ENGR 473	Control System Design	3.75
ENGR 481®	Engineering Project	4.00
ELEC 334	Electric Machinery	3.75
INDU 323	Industrial Operations Research	3.00
INDU 411*	Computer Integrated Manufacture and Assembly	3.75
MECH 412*	Computer-Aided Mechanical Design	3.75
MECH 421	Mechanical Shaping of Metals, Plastics and Composites	3.75
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 423	Casting, Welding, Heat Treating, and Non-Destructive Testing	3.75
MECH 425	Manufacturing of Composites	3.00
MECH 431	Principles of Aeroelasticity	3.00
MECH 443	Mechanical Vibrations	3.75
MECH 444	Guided Vehicle Systems	3.00
MECH 445*®	Machine Design	4.00
MECH 446	Process Equipment Design	3.00
MECH 447	Fundamentals of Vehicle System Design	3.00
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 463	Fluid Power Control	3.75
MECH 471	Microprocessors and Applications	3.75
MECH 472	Driverless Ground Vehicles	3.00
MECH 498	Topics in Mechanical Engineering	3.00

3. Option C — Automation and Control Systems

Students must complete a minimum of 16 credits from the following courses, including at least two of the three courses marked *.

		Credits
ENGR 471	Linear Systems	3.75
ENGR 472	System Optimization	3.75
ENGR 473*	Control System Design	3.75
ENGR 475	Process Dynamics and Control	3.75
ENGR 481	Engineering Project	4.00
ELEC 334	Electric Machinery	3.75
INDU 323	Industrial Operations Research	3.00
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 443	Mechanical Vibrations	3.75
MECH 444	Guided Vehicle Systems	3.00
MECH 446	Process Equipment Design	3.00
MECH 447	Fundamentals of Vehicle System Design	3.00
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 463*	Fluid Power Control	3.75
MECH 471*	Microprocessors and Applications	3.75
MECH 472	Driverless Ground Vehicles	3.00
MECH 498	Topics in Mechanical Engineering	3.00

4. Option D — Vehicle Engineering

Students must complete a minimum of 16 credits from the following courses, including MECH 447 and at least two of the courses marked *.

		Credits
ENGR 473	Control System Design	3.75
ENGR 481	Engineering Project	4.00
MECH 412	Computer-Aided Mechanical Design	3.75
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 443*	Mechanical Vibrations	3.75
MECH 444*	Guided Vehicle Systems	3.00
MECH 447	Fundamentals of Vehicle System Design	3.00
MECH 448*	Vehicle Dynamics	3.00
MECH 454	Vehicular Internal Combustion Engines	3.00
MECH 463	Fluid Power Control	3.75
MECH 471	Microprocessors and Applications	3.75
MECH 472	Driverless Ground Vehicles	3.00
MECH 498	Topics in Mechanical Engineering	3.00

NOTE: A student of one option is allowed to select a maximum of one elective course from the list of courses for other options.

71.60.2 Course Requirements (BEng in Industrial Engineering)

The programme in Industrial Engineering consists of the Engineering Core, the Industrial Engineering Core and 10.5 elective credits as shown below. The normal length of the programme is 117.75 credits.

Engineering Core (28.75 credits)
See §71.20.5

Industrial Engineering Core

		Credits
ACCO 213*	Introductory Financial Accounting	3.00
COMP 212*	FORTRAN for Engineers and Scientists	3.00
EMAT 311	Transform Calculus and Partial Differential Equations	3.00
ENGR 242*	Statics	3.00
ENGR 243*	Dynamics	3.00
ENGR 244*	Mechanics of Materials	3.75
ENGR 251*	Thermodynamics I	3.00
ENGR 274*	Modelling and Analysis of Physical Systems	3.75
ENGR 361	Fluid Mechanics I	3.00
ENGR 372	Fundamentals of Control Systems	3.75
INDU 211	Introduction to Industrial Engineering	3.00
INDU 311	Simulation of Industrial Systems	3.50
INDU 313	Industrial Economics	3.00
INDU 320	Production Engineering	3.00
INDU 323	Industrial Operations Research	3.00
INDU 330	Organizational Management	3.00
INDU 372	Quality Control and Reliability	3.00
INDU 411	Computer Integrated Manufacture and Assembly	3.75
INDU 412	Human Factor Engineering	3.75
INDU 421	Facilities Design and Material Handling Systems	3.75
INDU 480	Industrial Engineering Project	4.00
MECH 211*	Mechanical Engineering Drawing	2.00
MECH 221*	Materials Science	2.00
MECH 311	Manufacturing Processes	2.50
MECH 313	Machine Drawing and Design	3.00
		78.50

*Offered in both day and evening.

Electives
Students must complete a minimum of 10.5 credits from the following courses, including at least two of the courses marked *.

		Credits
ELEC 318	Industrial Electronics	3.75
ELEC 334	Electric Machinery	3.75
ENGR 472	System Optimization	3.75
ENGR 473	Control System Design	3.75
ENGR 475	Process Dynamics and Control	3.75
INDU 410*	Safety Engineering	3.00
INDU 423*	Production and Inventory Control	3.75
INDU 463*	Industrial Automation	3.00
INDU 466*	Decision Models in Service Sector	3.00
INDU 471*	Stochastic Models in Industrial Engineering	3.00
INDU 475*	Advanced Concepts in Quality Improvement	3.00
INDU 498*	Topics in Industrial Engineering	3.00
MECH 321	Properties and Failure of Materials	3.50
MECH 373	Instrumentation and Measurements	3.75
MECH 411	Design and Analysis of Mechanical Components	2.50
MECH 412	Computer-Aided Mechanical Design	3.75
MECH 421	Mechanical Shaping of Metals, Plastics and Composites	3.75
MECH 422	Mechanical Behavior of Polymer Composite Materials	3.00
MECH 423	Casting, Welding, Heat Treating, and Non-Destructive Testing	3.75
MECH 425	Manufacturing of Composites	3.00
MECH 431	Principles of Aeroelasticity	3.00
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 463	Fluid Power Control	3.75
MECH 471	Microprocessors and Applications	3.75
MECH 472	Driverless Ground Vehicles	3.00

71.70 COURSE DESCRIPTIONS

For equivalent course numbers under the old system, please consult the 1981-82 Undergraduate Calendar. Students who have taken a given course under an old number may not repeat it for credit under an equivalent number.

ENGINEERING MATHEMATICS

EMAT 212 ***Calculus and Differential Equations*** (3 credits)
Prerequisite: MATH 204 (CEGEP Mathematics 105) previously or concurrently; MATH 205 (CEGEP Mathematics 203). Introduction to ordinary differential equations with applications to engineering problems. Functions of several variables: differentiation and multiple integrals. Lectures: three hours per week. Tutorial: two hours per week.

EMAT 232 ***Matrices and Advanced Calculus*** (3 credits)
Prerequisite: EMAT 212 previously or concurrently. Review of matrix algebra; solution of systems of linear differential equations with examples drawn from physical systems; vector spaces, characteristic value problems, Cayley-Hamilton theorem with applications. Vector calculus: gradient, divergence, Curl, Green's theorem. Divergence theorem, Stokes theorem. Lectures: three hours per week. Tutorial: two hours per week.

EMAT 252 ***Complex Variables*** (3 credits)
Prerequisite: EMAT 212; EMAT 232 previously or concurrently. Algebra of complex numbers in Cartesian and polar forms; functions and inverse functions of complex variables. Derivatives and Cauchy-Riemann, analytic and harmonic functions. Exponential, trigonometric, hyperbolic, and logarithmic functions. Complex line integrals, Cauchy-Goursat theorem, Cauchy integral formula. Taylor's and Laurent's series. Residue theorem and applications. Lectures: three hours per week.

EMAT 311 ***Transform Calculus and Partial Differential Equations*** (3 credits)
Prerequisite: EMAT 232. Elements of complex variables. The Laplace transform: Laplace transforms and their properties, solution of linear differential equations with constant coefficients. Further theorems and their applications. The Fourier transform: orthogonal functions, expansion of a function in orthogonal functions, the Fourier series, the Fourier integral, the Fourier transform, the convolution theorem. Partial differential equations: physical foundations of partial differential equations, introduction to boundary value problems. Lectures: three hours per week.

EMAT 312 ***Laplace Transforms and Advanced Differential Equations*** (3 credits)
Prerequisite: EMAT 232; EMAT 252. The Laplace transform, its inverse and properties. Laplace transform of periodic functions. Applications to solution of linear differential equations with constant coefficients. Orthogonal functions, Fourier series, Fourier transform. The convolution theorem. Properties of special functions (e.g. Bessel, Legendre). Partial differential equations and introduction to boundary value problems. The Sturm Liouville problem. Lectures: three hours per week.

EMAT 391 ***Numerical Methods in Engineering*** (3 credits)
Prerequisite: EMAT 232; COMP 212 or COMP 293. Roots of algebraic and transcendental equations; function approximation; numerical differentiation; numerical integration; solution of simultaneous algebraic equations; numerical integration of ordinary differential equations. Lectures: three hours per week. Tutorial: one hour per week.

ENGINEERING AND COMPUTER SCIENCE

ENCS 245 ***Mechanical Analysis*** (3 credits)
Prerequisite: PHYS 204 and PHYS 224 (CEGEP Physics 101); EMAT 212 previously or concurrently. Forces in a plane and in space, moments of forces, Varignon's theorem, rigid bodies in equilibrium, free-body diagram. Centroids, centres of gravity. Distributed forces, moments of inertia. Principle of virtual work. Kinematics of particles and rigid bodies. Forces and accelerations; work and energy; impulse and momentum. Kinetics of particles and rigid bodies. Lectures: three hours per week. Tutorial: one hour per week.

ENCS 281 ***Technical Writing*** (2 credits)
Technical writing form and style. Technical and scientific papers, abstracts, reports. Library research and referencing methods. Business communications. Students may be required to attend tutorial writing workshops based on the results of placement tests administered at the start of the course. Lectures: two hours per week. Tutorial: two hours per week.

ENCS 454 ***Introduction to VLSI*** (4 credits)
Prerequisite: COEN 312 or COMP 327, and

permission of the instructor. Review of IC development and realization of logic elements. CMOS inverter, logic levels, power and speed considerations, area of implementation. Electrical analysis using SPICE, input, output, delay time and loading. CMOS NAND/NOR gates, fan-out limitations, and layout considerations. Simple CMOS process, design rules, and layout exercises. CMOS logic system design and analysis using SPLICE. Logic simulation and testing specification of input, output, and delay for fault simulation. Other CAD facilities for logic simulation and testing. Gate arrays and semicustom CMOS design considerations. CMOS dynamic VLSI circuits; CMOS memories. NMOS dynamic and static circuit design: NMOS memories. Hierarchical approach to digital design of VLSI circuits. Lectures: three hours per week. Laboratory: two hours per week.

ENCS 455 ***Introduction to VLSI Architecture*** (4 credits)
Prerequisite: COMP 325 and COMP 326 or COEN 416 previously or concurrently. Introduction to VLSI technology. Synchronous system design. Computational structures and algorithms. Applications of VLSI to problem-solving. Lectures: three hours per week. Laboratory: two hours per week.

ENCS 456 ***VLSI Process Technology*** (3 credits)
Prerequisite: ELEC 312. Introduction to basic VLSI technologies; crystal growth, thermal oxidation, diffusion, ion implantation, chemical vapor deposition, wet and dry etching, and lithography. Layout, yield, and VLSI process integration. Lectures: three hours per week.

ENCS 471 ***Algorithmic Aspects of Robotics*** (3 credits)
Prerequisite: COMP 224 and COMP 285 or COEN 311; COMP 352. Robot perception. Task planning. Kinematics. Algorithmic aspects. Lectures: three hours per week.

ENCS 472 ***Robot Manipulators*** (3.75 credits)
Prerequisite: ENCS 245; ENGR 274. Spatial descriptions and transformations. Manipulator forward and inverse kinematics. Jacobians: velocities and static forces. Manipulator dynamics. Trajectory generation. Position control of manipulators. Force control of manipulators. Robot programming languages. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ENGINEERING

ENGR 211 ***Technical Drawing*** (2 credits)
Fundamentals of technical drawing, including drawing and dimensioning practices, orthographic projections, isometric drawing and sketching, auxiliary and sectional views, and computer-aided drafting. Examples and applications are taken from all disciplines of the engineering programme by means of team-teaching. Lectures: one hour per week. Laboratory: two hours per week. Tutorial: one hour per week.

ENGR 242 ***Statics*** (3 credits)
Prerequisite: EMAT 212 previously or concurrently; PHYS 204 and PHYS 224 (CEGEP Physics 101); MATH 204 (CEGEP Mathematics 105). Resultant of force systems; equilibrium of particles and rigid bodies; distributed forces; statically determinate systems; trusses; friction; moments of inertia; virtual work. Shear and bending moment diagrams. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 243 ***Dynamics*** (3 credits)
Prerequisite: EMAT 212; ENGR 242. Kinematics of a particle and rigid body; forces and accelerations; work and energy; impulse and momentum; dynamics of a system of particles and rigid bodies, introduction to vibrations. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 244 ***Mechanics of Materials*** (3.75 credits)
Prerequisite: ENGR 242; EMAT 232 previously or concurrently. Mechanical behaviour of materials; stress; strain; shear and bending moment diagrams; introduction to inelastic action. Analysis and design of structural and machine elements subjected to axial, torsional, and flexural loadings. Combined stresses and stress transformation. Deflections. Introduction to elastic stability. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

ENGR 251 ***Thermodynamics I*** (3 credits)
Prerequisite: MATH 203 (CEGEP Mathematics 103). Basic principles of thermodynamics and their application to various systems composed of pure substances and their homogeneous non-reactive mixtures. Simple power production and utilization cycles. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 273 ***Basic Circuit Analysis*** (3.75 credits)
Prerequisite: EMAT 212 previously or concurrently; PHYS 205 and PHYS 225 (CEGEP Physics 201). Current, voltage, power, and energy; instantaneous, average, and RMS values. Resistors. Ohm's law. Dependent and independent sources. Kirchoff's laws, mesh and modal analysis. Network theorems: super position, reciprocity, Thevenin, Norton, maximum power transfer. Inductors and capacitors. Step response of simple RC, RL, and RLC circuits. Sinusoidal steady-state response of simple RLC circuits. Phasors, power, impedance, resonance. Lectures: three

hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

ENGR 274 ***Modelling and Analysis of Physical Systems*** (3.75 credits)
Prerequisite: ENGR 273. Representations of idealized linear lumped mechanical, fluid, and thermal systems in terms of electrical circuits. Singularity functions, system response to singularity functions as input. The Laplace transform as a method of solving system equations. The representation of circuit elements and initial conditions in the transform domain. Generalized impedance and system functions; properties of linear systems; frequency response. Coupled coils and transformers. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

ENGR 342 ***Structural Analysis I*** (2 credits)
Prerequisite: ENGR 244 previously or concurrently. Analysis of statically determinate structures: deflections, strain energy concepts, virtual work principles. Mueller Breslau principle, influence lines. Approximate methods for statically indeterminate structures. Collapse load analysis. Computer applications. Lectures: two hours per week. Tutorial: one hour per week.

ENGR 343 ***Structural Analysis II*** (3 credits)
Prerequisite: ENGR 342. Analysis of statically indeterminate structures: the methods of consistent deformations, slope deflection, and moment distribution. Application of virtual work principles. Introduction to matrix methods. Computer applications. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 344 ***Structural Design I*** (3 credits)
Prerequisite: ENGR 342 previously or concurrently. Basis for limit states design. Code requirements. Structural steel design: tension and compression members, beams and beam-columns. Connections. Introduction to the design of timber members. Lectures: two hours per week. Laboratory: two hours per week.

ENGR 345 ***Structural Design II*** (3 credits)
Prerequisite: ENGR 342 previously or concurrently. Reinforced concrete behaviour in flexure, compression, shear, and bond. Ultimate strength design of reinforced concrete beams, columns, walls, and footings. Introduction to prestressed concrete and masonry. Lecture: two hours per week. Laboratory: two hours per week.

ENGR 361 ***Fluid Mechanics I*** (3 credits)
Prerequisite: EMAT 212; EMAT 232; ENGR 251. Basic concepts and principles of fluid mechanics. Classification of fluid flow. Hydrostatic forces on plane and curved surfaces, buoyancy and stability, fluids in rigid body motion. Mass, momentum, and energy conservation integral equations. Bernoulli equation. Basic concepts of pipe and duct flow. Introduction to Navier-Stokes equations. Similarity and model studies. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 371 ***Probability and Introduction to Random Processes in Engineering*** (3 credits)
Prerequisite: EMAT 232. Axioms of probability theory events, Bayes theorem. Random variables, probability density functions, moments, and transformations. Probabilistic models, statistics, and elements of hypothesis testing. Random processes, stationarity and ergodicity, correlation and power spectral density functions. Application to engineering design problems. Lectures: three hours per week.

ENGR 372 ***Fundamentals of Control Systems*** (3.75 credits)
Prerequisite: EMAT 311 or EMAT 312; ENGR 274. Mathematical models of control systems. Characteristics, performance, and stability of linear feedback control systems. Root-locus methods. Frequency response methods. Stability in the frequency domain. Design and compensation of feedback control systems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ENGR 401 ***Engineering Economics and Management Principles*** (1.5 credits)
Prerequisite: ENGR 371. This course is presented in relation to the practice of engineering and includes the following topics: role and activities of the manager. Enterprises and organizations; organizational modes. Planning and control; principles and practice of decision-making. Interest and the time value of money; expected value and decision trees. Capital expenditure appraisal, discounted cash flow, and other methods. Sensitivity analysis. Lectures: one and a half hours per week.
NOTE: Students who have received credit for ENGR 403 may not take this course for credit.

ENGR 402 ***Engineering Law*** (1.5 credits)
Prerequisite: BLDG 401 or ENGR 401 or INDU 313 previously or concurrently. A review of Québec laws such as those pertaining to engineering registration, property, the right of ownership and its restrictions, civil responsibility and contracts, particularly in application to engineering and related professions, as well as corporations and other business organizations. Lectures: one and a half hours per week.

ENGR 410 ***Technical Report*** (1.5 credits)
Prerequisite: ENCS 281. Students in the BEng programme must submit a technical report on entering their final year. The report must be from 2,000 to 5,000 words long, on a topic closely related to the student's discipline. The report must present a review of a current

engineering problem or a current engineering practice; a student's summer work may provide a suitable basis. Students are responsible for acquiring a complete set of instructions and the document *Form and Style* in the spring before entering the final year of the BEng programme. These documents are available from the Office of Student Affairs of the Faculty.
N.B. Students must discuss their proposed topic with a faculty member in their Department, and obtain departmental approval of the proposed topic prior to registration for the course. The report must be submitted no later than 5 PM on the third Monday after fall classes begin.

ENGR 451 ***Construction Engineering*** (3 credits)
Prerequisite: BLDG 341 or CIVI 341. The nature of construction and the environment in which the industry works; organizational structures for project delivery; construction contracts and documents; introduction to construction processes: excavation and site works, foundation layout, concrete form design, concrete, steel, timber, and masonry construction; project planning, scheduling, and control; construction safety. Lectures: three hours per week.

ENGR 452 ***Matrix Analysis of Structures*** (3 credits)
Prerequisite: EMAT 232; ENGR 343. Classical and matrix methods of structural analysis; influence coefficients, transformation matrices. Matrix formulation of the force and of the displacement methods of analysis. Direct stiffness approach; sub-structure technique. Introduction to finite-element method. Computer applications. Lectures: three hours per week.

ENGR 455 ***Introduction to Structural Dynamics*** (3 credits)
Prerequisite: EMAT 391; ENGR 243; ENGR 342. Theory of vibration. Dynamic response of simple structural systems. Effects of blast, wind, traffic, and machinery vibrations. Basic concepts in earthquake resistant design. Computer applications. Lectures: three hours per week.

ENGR 471 ***Linear Systems*** (3.75 credits)
Prerequisite: ENGR 372. Review of matrix algebra. State-space description of dynamic systems: linearity, causality, time-invariance, linearization. Solution of state-space equations. Transfer function representation. Discrete-time models. Controllability and observability. Canonical forms and minimal-order realizations. Stability. Stabilizability and pole placement. Linear quadratic optimal control. Observer design. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ENGR 472 ***System Optimization*** (3.75 credits)
Prerequisite: EMAT 391. Linear least squares. Properties of quadratic functions with applications to steepest descent method, Newton's method and Quasi-Newton methods for nonlinear optimization. One-dimensional optimization. Introduction to constrained optimization, including the elements of Kuhn-Tucker conditions for optimality. Least p^{th} and mini-max optimization. Application of optimization techniques to engineering problems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ENGR 473 ***Control System Design*** (3.75 credits)
Prerequisite: ENGR 372. A course in industrial control design procedures by case study, including practical sensing, control, and actuating elements; optimization of system performance by choice of components and compensation; nonlinearites, introduction to multi-loop systems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ENGR 475 ***Process Dynamics and Control*** (3.75 credits)
Prerequisite: ENGR 372. Dynamics of mechanical and chemical processes; system capacity; resistance; piping complexes; characteristics and dynamics of control valves; process time constants; proportional, reset, and derivative control actions; feedforward and cascade control; direct digital control. Case studies on liquid-level control, temperature, and heat exchanger control. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ENGR 481 ***Engineering Project*** (4 credits)
Prerequisite: ENGR 410 concurrently, and permission of the student's Department. The Engineering Project provides an opportunity for final-year students to undertake a supervised design, simulation, or experimental project. The topic must be approved by the appropriate Department(s) prior to registration in the course. Topic proposals submitted for approval must include evidence that a faculty member will supervise an individual student's project, while those for interdisciplinary projects by two students from different Departments must include such evidence from a faculty member in both Departments. Each student registered in the course is to present a complete report on the project by the end of the 12^{th} week of the Winter Term. Equivalent laboratory time: four hours per week, two terms.

SOCIAL ASPECTS OF ENGINEERING

ENGR 491 ***Engineers and Society*** (3 credits)
Prerequisite: ENCS 281; 20 courses in BEng programme. Sociological analysis of the interaction between the engineering profession and society, the development of the profession, growth of technical societies, trends in engineering and engineering technology

education, relationship to other professions. Role of engineers in Canadian industry, government, and industrial research. Lectures: three hours per week.

ENGR 492 ***Historical Impact of Technology on Society*** (3 credits)
Prerequisite: ENCS 281; 20 courses in BEng programme. Social history of technology and of science including ancient and medieval periods, industrial revolution, and modern times. Engineering and scientific creativity, social and environmental problems created by uncontrolled technology, appropriate technology. Lectures: three hours per week.

ENGR 493 ***Engineering, Resources and Environment*** (3 credits)
Prerequisite: ENCS 281; 20 courses in BEng programme. Sources, consequences and control of air, water, noise, solid, and radiation pollution. Management of mineral and energy resources. Conservation of resources through engineering efficiency, recycling, and communal practices. Renewable resources. Case studies of engineering projects. Lectures: three hours per week.

ENGR 494 ***Effect of Technology on the Person*** (3 credits)
Prerequisite: ENCS 281; 20 courses in BEng programme. Psychological effects of various technologies. Changes in personal, family, and community values arising from various patterns of industrial development. Enhancement of personal development by technology, adaptation of the machine to humanity. Lectures: three hours per week.

ENGR 495 ***Technology Assessment and Control*** (3 credits)
Prerequisite: ENCS 281; 20 courses in BEng programme. The organization of mechanisms and institutions to control and mediate the unwanted and unanticipated side-effects of contemporary technology. Environmental impact assessment, analysis of industrial health and safety, risk analysis. Technological forecasting, future studies, appropriate technology, the conserver society. Relationships of technology assessment to science policy, resource planning, and energy strategy. Lectures: three hours per week.

ENGR 496 ***Science Policy and Engineering Innovation*** (3 credits)
Prerequisite: ENCS 281; 20 courses in BEng programme. An analysis of the basic concepts in science and technology policy, including the allocation of resources; research and development; invention, innovation, and diffusion. The social impact of policy decisions and the structure and programmes of government organizations involved in the field. Of particular concern will be issues such as foreign ownership; science and technology development within a regional context; the role of government, industry, and the universities within a balanced science and technology policy. Lectures: three hours per week.

ENGR 497 ***The Management of Transition to an Information Society*** (3 credits)
Prerequisite: ENCS 281; 20 courses in BEng programme. Understanding the social role of the new technologies of the information machine, the emerging information society, the rate of adoption of new technologies, the implications of the information machines for global societies. The effects of the new technology on the structure of decision-making process. Lectures: three hours per week.

BUILDING ENGINEERING

BLDG 211 ***Building Engineering Drawing*** (2 credits)
Prerequisite: ENGR 211. Theory and applications of descriptive geometry in building design; computer-aided building drawing. Graphics standards; architectural and working construction drawings; project: presentation and detailing of a building and its subsystems. Lectures: one hour per week. Laboratory: two hours per week. Tutorial: one hour per week.

BLDG 341 ***Building Engineering Systems*** (3 credits)
Prerequisite: COMP C211 or COMP 212; EMAT 232 previously or concurrently. Introduction to systematic solution of building engineering problems. Techniques treated include linear programming, network analysis, nonlinear programming, geometric programming, and an introduction to decision analysis and simulation. Techniques illustrated by application to problems in building science, building environment, building structures, and construction management. Lectures: three hours per week.

BLDG 363 ***Building Science I*** (4 credits)
Prerequisite: ENGR 243. General introduction to the aural and visual environment. Subjective and objective scales of measurement. Laws of psychophysics. Introduction to vibration. The hearing mechanism. Transfer of sound. Passive control of noise in buildings, transmission loss. Absorption and reverberation time. Active control of the aural environment. Visual perception. Photometry, brightness, luminance, and illumination. Natural lighting of buildings. Artificial lighting. Colorimetry. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

BLDG 364 ***Building Science II*** (4 credits)
Prerequisite: ENGR 251; ENGR 361 previously or concurrently. General introduction to the

thermal environment. Topics include heat, temperature, one-dimensional steady-state processes. Convection: natural and forced. Radiation. Combined radiative and convective surface transfer. Psychrometrics. Thermal comfort. Air quality. Condensation: surface and interstitial. Introduction to compressible viscous flow, friction, and flow in pipes; boundary layer and wind effects. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

BLDG 371 ***Building Service Systems*** (3.5 credits)
Prerequisite: BLDG 364. Principles of building service systems, including electrical, gas, communications, service-water supply and distribution; introduction to plans, codes, and standards for utility distribution systems. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

BLDG 401 ***Building Economics*** (3 credits)
Prerequisite: BLDG 341 previously or concurrently. Development of economic performance measures of interest to developers, owners, contractors, and users. Sources of finance and the determinants of the cost of money. Treatment of life cycle costing, economic risk; tax regulation, inflation, forecasting techniques; model building, cost indices, elemental estimating, computerized information systems. Consideration of economic analyses of projects, single buildings, and building components. Lectures: three hours per week.

BLDG 459 ***Computer-Aided Building Design*** (3 credits)
Prerequisite: BLDG 341; BLDG 401 previously or concurrently. Identification of objectives, decision variables, processes, and information flow in building design. Applications and evaluation of computer systems to components of the building-design process. Determination of decision variables in problem modelling and sensitivity of results. Current applications in structural analysis and design, space layout, electrical distribution systems, HVAC design, lighting design, estimating, specification editing, and scheduling. Evaluation of issues of interdisciplinary information control and interchange. Lectures: three hours per week.

BLDG 461 ***Building Enclosure Design*** (3 credits)
Prerequisite: BLDG 363; BLDG 364; CIVI 321. Technical influences on the design of building exteriors, including the control of heat flow, air and moisture penetration, building movements, and deterioration. Special emphasis is given to the principle of rain-screen walls and to energy conserving designs. Analytical techniques and building codes are discussed through case studies and design projects. Lectures: three hours per week.

BLDG 462 ***Modern Building Materials*** (3 credits)
Prerequisite: CIVI 321. Engineering properties of building materials such as: plastics, synthetic fibres, adhesives, sealants, caulking compounds, foams, sandwich panels, composites, polymer concrete systems, fibre-reinforced concretes, plastic mortars, polymers for flooring, roofing, synthetic wall papers. Their structural, thermal, and acoustical properties. Consideration of corrosion, bio- and thermal-degradation, stability to ultraviolet and solar radiation. Laboratory sessions to illustrate synthesis, application, testing, deterioration, and protection. Lectures: three hours per week.

BLDG 465 ***Fire and Smoke Control in Buildings*** (3 credits)
Prerequisite: BLDG 363; BLDG 364. Topics treated include fire and smoke control; failure mechanisms of building enclosure illustrated by case studies; code requirements for enclosure systems; systems approach for fire safety. Lectures: three hours per week.

BLDG 471 ***HVAC System Design*** (4 credits)
Prerequisite: BLDG 371; BLDG 476 previously or concurrently. Principles of HVAC system design and analysis; component and system selection criteria including room air distribution, fans and air circulation, humidifying and dehumidifying processes, piping and ducting design. Air quality standards. Control systems and techniques; operational economics; computer applications. Lectures: three hours per week. Laboratory: two hours per week.

BLDG 472 ***Building Energy Conservation Technologies*** (3 credits)
Prerequisite: BLDG 471 previously or concurrently. Identification of the optimal energy performance achievable with various types of buildings and service systems. Reduction of infiltration. Control systems and strategies to achieve optimal energy performance. Low-energy heat rejection and recuperation systems. Effective utilization of daylight, heat pumps, passive and active solar heaters, heat storage, heat pipes, and thermosyphons in new and old buildings. Lectures: three hours per week.

BLDG 473 ***Building Acoustics*** (3 credits)
Prerequisite: BLDG 363. Noise control criteria and regulations, instrumentation, noise sources, room acoustics, walls, barriers and enclosures, acoustical materials and structures, vibration and noise control systems for buildings. Lectures: three hours per week.

BLDG 474 ***Building Illumination*** (3 credits)
Prerequisite: BLDG 363. Production, measurement and control of light, design of lighting systems. Design in respect to daylighting. Integration of lighting systems with mechanical systems. Lectures: three hours per week.

BLDG 475 ***Indoor Air Quality*** (3 credits)
Prerequisite: BLDG 371 previously or concurrently. Elements of indoor air quality, physical/chemical characteristics of contaminants, health effects, standard requirements. Estimation of the levels of indoor air contaminants in buildings. Design of ventilation systems for pollutant control. Air pollution due to outdoor air supply through ventilation systems. Effect of outdoor air pollution on indoor air quality. Lectures: three hours per week.

BLDG 476 ***Thermal Analysis of Buildings*** (3 credits)
Prerequisite: BLDG 364. Two- and three-dimensional steady-state and transient conductive heat transfer together with convection and radiation as applied to building materials and geometries. Heating and cooling load analysis, including building shapes, construction type, solar radiation, infiltration, occupancy effects, and daily load variations. Computer applications for thermal load analysis. Introduction to heat exchangers. Lectures: three hours per week.

BLDG 481 ***Architectural Appreciation and Design*** (3 credits)
Prerequisite: 20 courses in the BEng programme. Historical and modern architectural theories. Meaning, intentions, and formal issues in contemporary design. The influence of technology, energy conservation, and environmental constraints on built form. Architecture vs. industrial design. Lectures: three hours per week.

BLDG 491 ***Labour and Industrial Relations in Construction*** (3 credits)
Prerequisite: ENGR 451. The study of labour legislation with special emphasis on the construction industry, union organization, the theory and practice of negotiations, mediation, contract administration, and arbitration. Review of actual contracts, discussion of future trends. Lectures: three hours per week.

BLDG 492 ***Construction Processes*** (3 credits)
Prerequisite: ENGR 451. A study of current construction methods and techniques. The subjects include site preparation and earthwork, wood framing, masonry, concrete forming, slip forming, precast construction, industrialized building, deep excavation shoring and underpinning. Design, erection, and removal of temporary construction work. Current field practice and safety considerations. Site visits. Lectures: three hours per week.

BLDG 493 ***Legal Issues in Construction*** (3 credits)
Prerequisite: ENGR 451. Legal concepts and processes applicable to the development of constructed facilities and to the operation of the construction firm. Emphasis on Québec law and institutions. Lectures: three hours per week.

BLDG 498 ***Topics in Building Engineering*** (3 credits)
Prerequisite: Permission of the Centre for Building Studies. This course may be offered in a given year upon the authorization of the Centre for Building Studies. The course content may vary from offering to offering and will be chosen to complement the available elective courses. Lectures: three hours per week.

CIVIL ENGINEERING

CIVI 211 ***Civil Engineering Drawing*** (2 credits)
Prerequisite: ENGR 211. Descriptive geometry of points, lines, planes, and solids; pictorial representation of three-dimensional objects. Working and detailed drawings of steel and concrete structures, foundations, and highways. Computer-aided drawing applications. Lectures: one hour per week. Laboratory: two hours per week. Tutorial: one hour per week.

CIVI 231 ***Geology*** (2.75 credits)
Basic principles of physical and structural geology with emphasis on topics related to civil engineering, study of minerals, rocks and soil types, load formation, techniques of air-photo interpretations, and geological maps. Lectures: two hours per week. Laboratory: three hours per week, alternate weeks.

CIVI 271 ***Surveying*** (3 credits)
Elementary operations employed in engineering surveying; use, care, and adjustment of instruments; linear and angular measurements; traversing; earthwork calculations; theory of errors; horizontal and vertical curves and curve layout; slope stakes and grades, application of surveying methods to city, topographic surveying, and introduction to advanced surveying techniques; use of digital computers in surveying calculations. Summer school taken before entering second year of study in the BEng programme. Lectures and fieldwork: eight hours per day; six days per week for three weeks.

CIVI 321 ***Engineering Materials*** (3.75 credits)
Linear and nonlinear material behaviour, time-dependent behaviour; structural and engineering properties of structural metals; behaviour of wood; production and properties of concrete; bituminous materials, ceramics, plastics; introduction to composite materials. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

CIVI 341 ***Civil Engineering Systems*** (3 credits)
Prerequisite: ENGR 371 previously or concurrently; COMP 212. Development of

concepts and techniques commonly associated with systems engineering which are applicable to design and operation of systems that concern civil engineers. Design and planning process; problem formulation, optimization concepts, linear programming, decision analysis; system simulation; network planning and project scheduling; computer applications. The techniques developed are used to solve problems in transportation, water resources, structures, and construction management. Lectures: three hours per week.

CIVI 361 ***Introduction to Environmental Engineering*** (3.5 credits)
Prerequisite: ENGR 361. Ecosystems considerations, food chain, natural decomposition, and recycling; environmental problems and impact of engineering activities. Various modes of pollution, water, air, and soil contamination, noise pollution; pollution measurement and quantification. Water and waste-water physical, chemical and biological characteristics; turbidity and colour, dissolved oxygen, hardness, pH, alkalinity, organic content, sampling and analysis, chemical and biochemical oxygen demand. Basic processes of treatment: flocculation and coagulation, sedimentation, filtration. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

CIVI 372 ***Transportation Engineering*** (3 credits)
Prerequisite: CIVI 341. Fields of transportation engineering; transportation's roles in society; planning and design of road, rail, air, and waterway system components: terminals, right-of-way; control systems: evaluation of alternative modes and decision-making process; introduction to computer-aided design and management of systems. Lectures: three hours per week. Tutorial: one hour per week.

CIVI 381 ***Hydraulics*** (3.5 credits)
Prerequisite: ENGR 361. Basic hydrodynamics; boundary layer theory, principle of energy losses. Steady flow in open channel; uniform flow, specific energy and critical flow, transition; non-uniform flow, water surface profiles, applications of HEC2 software. Flow measurement in open channel, weirs, overflow spillways. Unsteady flow in open channels, characteristics-based computations. Lectures: two hours per week. Laboratory: three hours per week.

CIVI 382 ***Water and Waste-Water System Design*** (3.5 credits)
Prerequisite: CIVI 381. Water use cycle; population forecast, water demands. Sources of waters, surface water, ground water, water quantities and requirements. Water supply network analysis, design of distribution systems, storage, pumping. Sanitary and storm water quantities, urban hydrology. Design of sewer systems, interceptors, gravity sewers, computer applications. Lectures: two hours per week. Laboratory: three hours per week.

CIVI 431 ***Soil Mechanics*** (3.75 credits)
Prerequisite: ENGR 244. Index properties and classification of soils. Weight-volume relationships. Soil structures. Moisture-density relationships. Permeability, deformation, and strength of soils. Principle of total and effective stresses. Steady stage seepage through isotropic soil media. Stress distribution due to external loads and analysis of total settlements. Outline of theory of consolidation. Fundamentals of stability of earth retaining walls, slopes, and footings. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks. Tutorial: one hour per week.

CIVI 435 ***Foundation Design*** (3.5 credits)
Prerequisite: CIVI 431. Loads, bearing capacity, and settlement. Lateral pressures. Foundation drainage and water-proofing. Spread footings. Strip footings. Pile foundations. Caissons. Retaining walls. Sheet-piling walls. Braced cofferdams. Cellular cofferdams. Anchors. Lectures: two hours per week. Laboratory: three hours per week.

CIVI 437 ***Advanced Geotechnical Engineering*** (3 credits)
Prerequisite: CIVI 431. Mechanical properties of rocks and rock formations. Underground openings in rocks. Slope stability of stratified formations. Foundations on rocks. Rock bolting. Introduction of soil dynamics. Wave propagation in one and two dimensions in elastic media. Seismic waves. Foundations subjected to dynamic loading. Theory of liquefaction. Lectures: three hours per week.

CIVI 453 ***Design of Reinforced Concrete Structures*** (3.5 credits)
Prerequisite: ENGR 343; ENGR 345. Design of long columns, columns subjected to biaxial bending, two-way slabs, flat plates, girders, and shells. Design of frames, shear-walls, and prefabricated structures. Prestressed concrete: losses, short- and long-term deflections; design requirements for shear, flexure, bond, and anchorage. Lectures: two hours per week. Laboratory: three hours per week.

CIVI 454 ***Design of Steel Structures*** (3.5 credits)
Prerequisite: ENGR 343; ENGR 344. Trends and developments in structural-steel design. Framing systems. Floor systems; composite construction; plate girders. Design of braced frames, moment-resisting frames. Connections. P-Delta effects. Introduction to steel-bridge design. Lectures: two hours per week. Laboratory: three hours per week.

CIVI 464 ***Environmental Impact Assessment*** (3 credits)
Prerequisite: CIVI 361. Engineering activities and the environment; environmental ethics.

Prediction and estimation of impact on air, water, soil quality, and biological, socio-economic, cultural environments. Water and air pollution laws, solid and hazardous waste laws. Environmental inventories, assessment preparation, and review. Federal and provincial laws and regulations on environmental assessment. Strategies for environmental compliance, resolution of environmental conflicts. Case studies. Lectures: three hours per week.

CIVI 465 ***Water Pollution and Control*** (3.5 credits)
Prerequisite: CIVI 361. Physical, chemical, and biological characteristics of water, water quality standards, reaction kinetics and material balances, eutrophication. Containment of reactive contaminants. Natural purification processes in water systems, adsorption, absorption; diffusion and dispersion, oxidation. Large-scale transport of contaminants, single and multiple source models; modelling of transport processes, computer simulation. Introduction to groundwater pollution, sea-water intrusion. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

CIVI 466 ***Engineering Aspects of Chemical and Biological Processes*** (3 credits)
Prerequisite: CIVI 361. Introduction to water purification, chemical treatment, coagulation, disinfection, special purification methods. Primary and secondary waste-water treatment, solution and surface chemistry, microbiological consideration; reaction kinetics, diffusion processes, membrane processes, re-aeration. Biological treatment, activated sludge process, treatment and disposal; biological reactors; aerated lagoons; trickling filter; biological nutrient removal. Tertiary waste-water treatment. Lectures: three hours per week.

CIVI 467 ***Air Pollution and Emission Control*** (3 credits)
Prerequisite: CIVI 361. Types of air pollutants. Sources of air pollutants, effects of air pollutants on health, vegetation, materials, and the atmosphere; emission standards. Meteorological considerations, dispersion of pollutants in the atmosphere, distribution and cleansing of particle matter, atmospheric photochemical reactions. Particulate pollutant control, source correction, cooling treatment; control of gaseous pollutant, point sources, odour control; measurement techniques; computer applications. Lectures: three hours per week.

CIVI 468 ***Waste Management*** (3 credits)
Prerequisite: CIVI 361. Solid waste; source and generation, sampling and analysis, collection, transport, and storage. Waste recycling, physical and chemical reduction; drying; energy recovery; disposal of solid waste. Sanitary and secure landfill planning, site selection, design and operation; chemical and biological reactions. Hazardous waste, chemical and physical characteristics, handling, processing, transportation, and disposal. Resource recovery alternatives, material exchanges, hazardous waste management facilities, incinerators, landfills. Lectures: three hours per week.

CIVI 469 ***Geo-Environmental Engineering*** (3.5 credits)
Prerequisite: CIVI 361. Structure and surface chemistry of soil, ion exchange, hydrolysis equilibrium, adsorption. Biochemical degradation, toxic contaminants. Mechanical and thermodynamic equilibrium in soil. Geotechnical considerations in environmental design; soil decontamination. Barrier technologies and soil interaction. Landfill covers and leachate collection systems; subsurface investigation, soil-gas survey. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

CIVI 471 ***Highway and Pavement Design*** (3.5 credits)
Prerequisite: CIVI 271; CIVI 372. Design criteria, including capacity and level of service; route alignment and right-of-way considerations; geometric design; earthworks and construction practices. Pavement materials and tests; design of flexible and rigid pavements; pavement management. Computer applications. Geometric and pavement design projects. Lectures: two hours per week. Laboratory: three hours per week.

CIVI 474 ***Transportation Planning and Design*** (3 credits)
Prerequisite: CIVI 372. Transportation planning process; data collection and demand analysis; trip generation, trip distribution, modal split and route assignment; forecasting travel patterns. Design of transportation facilities: street sections, intersections, and parking areas. Computer applications and design projects. Lectures: three hours per week. Tutorial: two hours per week; alternate weeks.

CIVI 483 ***Hydrology*** (3.5 credits)
Prerequisite: CIVI 381. Weather elements; precipitation, stage-discharge relations; evapo-transpiration; ground-water flow; stream-flow hydrography, unit hydrography, synthetic hydrographs; laminar flow; hydrologic routing; instantaneous hydrograph; hydraulic routing, method of characteristics, kinematic routing; statistical analysis, confidence intervals, stochastic generator, autoregressive model; applications of hydrology. Lectures: two hours per week. Laboratory: three hours per week.

CIVI 489 ***Computational Hydraulics*** (3.5 credits)
Prerequisite: CIVI 381. Continuous and discrete forms of conservation laws; mass, momentum, and energy in one-, two- and three-dimensional forms; St. Venant and Boussinesq equations;

numerical methods; finite differences, implicit and explicit schemes; finite elements; application to engineering and environmental hydraulics; computer applications. Lectures: two hours per week. Laboratory: three hours per week.

COMPUTER ENGINEERING

COEN 231 ***Introduction to Discrete Mathematics*** (3 credits)
Prerequisite: MATH 204 (CEGEP Mathematics 105). Sets and binary relations. Algebraic structures, including binary operations, semigroups, groups, rings, and morphisms. Lattices, including posets and distributive lattices. Graphs. Boolean algebras, including lattice representation of Boolean algebras and canonical expressions. Lectures: three hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 231 may not take this course for credit.

COEN 240 ***Introduction to Computing Environment*** (1 credit)
Introduction to UNIX system; directories and files; commands and standard files; user-to-user communication; text manipulation; formatting; introduction to programming in C; introduction to structured programming; conditional statements; programme loops and pointers; simple array structure; file organization. Laboratory: two hours per week. Tutorial: one hour per week.

COEN 241 ***Programming Methodology*** (3 credits)
Prerequisite: MATH 205 (CEGEP Mathematics 203); COEN 231 previously or concurrently; COEN 240 previously or concurrently. Overview of notations and programming development, including natural programming language, conditional instructions and conditional executions, repeat instruction and repetition, procedures and functions, arrays, searching and sorting. Lectures: three hours per week.
NOTE: Students who have received credit for COMP 244 may not take this course for credit.

COEN 290 ***Introduction to C++*** (1 credit)
Prerequisite: COEN 241. Introduction to C++ programming and inheritance; simple programmes and the predefined data types; object-oriented design of packages; structured programming; derived types; functions; data files and library files; classes and derived classes. Laboratory: two hours per week. Tutorial: one hour per week.

COEN 311 ***Computer Organization and Software*** (3 credits)
Prerequisite: COMP 212 or COMP 244. Introduction to basic functional units in a computer and terminology; fixed-point and floating-point arithmetic; machine programming fundamentals; instruction structure and addressing modes; subroutine, stack, the assembly process. Microprocessors: examples of architectures, assembler and addressing modes, instruction set, programming; input/output, programmed and interrupt driven I/O; memory management; operating systems concepts. Lectures: three hours per week. Tutorial: one hour per week.

COEN 312 ***Digital Systems Design*** (3.75 credits)
Boolean algebra, logic minimization, multiple output circuits. Designing with MSI and LSI chips, decoders, multiplexers, adders, multipliers, programmable logic devices. Introduction to sequential circuits; flip-flops. Completely specified sequential machines. Machine equivalence and minimization. Implementation of clock mode sequential circuits. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for COEN 413 may not take this course for credit.

COEN 412 ***Digital Electronics*** (3.75 credits)
Prerequisite: ELEC 312. Modelling of semiconductor devices for analysis and simulations; MOS, CMOS, TTL, Schottky TTL, ECL, and GaAs circuits. Switching speeds, power dissipation, noise immunity, fan-in and fan-out. Flip-flops and multi-vibrators; interface and BiCMOS circuits. Static and dynamic random-access memories; read-only memories and programmable logic devices and arrays. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

COEN 414 ***Sequential Circuits*** (3.75 credits)
Prerequisite: COEN 312. Two-level and multi-level logic optimization techniques, hardware description languages (VHDL) for synthesis and simulation; asynchronous design; algorithmic state machines; clocking and clock skew; metastability; self-timed concepts; finite state machine (FSM) optimization; state reduction; FSM partitioning; programmable logic devices and field programmable gate arrays; data path and control design for processors; testing issues. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

COEN 416 ***Computer Architecture and Design*** (3 credits)
Prerequisite: COEN 311; COEN 312. Review of basic computer architecture designs; fundamentals of computer design and performance; cost issues; instruction set design principles. Memory hierarchies: registers, caches, and virtual memories. Basic processor implementation issues. High performance computing issues such as pipelining, superscalar, and vector processing. Input/output subsystem designs. Lectures: three hours per week.

COEN 417 ***Microprocessor Systems*** (4.5 credits)
Prerequisite: COEN 311; COEN 312. Introduction to microprocessor interfacing. Bus functions, bus interconnections, synchronous and asynchronous bus. Signal flow and data transfer, decoding for I/O and memory, memory organization and structures. Interfacing examples; parallel interfacing, serial interfacing, the interrupt system; bus arbitration and DMA. Analog-to-digital and digital-to-analog structures and interfacing. Floppy disc and CRT controllers; bus standards; local area networks. Benchmarking and comparative study of recent microprocessors. Lectures: three hours per week. Laboratory: three hours per week.

COEN 418 ***Real-Time System Design*** (4.5 credits)
Prerequisite: COEN 417; COMP 343. Introduction to real-time systems. Requirements, programming, design, applications, reliability, and fault tolerance. Real-time multi-tasking operating systems. Multi-tasking and schedule, task control, intertask communication and synchronization, interrupt and exception handling, examples. Real-time multi-processor system design: concurrent programming and examples of programming languages, concurrent processes and reliability, resource sharing and control, inter-processor communication and synchronization, bus configuration and link configuration, special processors. Case studies in real-time system design. Lectures: three hours per week. Laboratory: three hours per week.

COEN 431 ***Software Engineering*** (3.75 credits)
Prerequisite: COMP 343. Overview of an object-oriented language. Introduction to the lifetime of a software system; software reliability; basics of information hiding, object-oriented design, requirements analysis, scenario development, facilities dependency diagram. System structure, module interfaces, module interface specifications, algebraic specifications, trace specifications, canonical traces. Mapping module specifications into module implementations; testing and debugging, test derivation from module specifications, test plans; code walkthroughs, reports. Product delivery, maintenance, configuration management, versions; CASE tools. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.
NOTE: Students who have received credit for COMP 354 may not take this course for credit.

COEN 498 ***Topics in Computer Engineering*** (3 credits)
Prerequisite: Permission of the Department. The course, when offered, will include topics which complement elective courses in computer engineering and computer science. Lectures: three hours per week.

ELECTRICAL ENGINEERING

ELEC 251 ***Fundamentals of Applied Electromagnetics*** (3 credits)
Prerequisite: ENGR 273; EMAT 232 previously or concurrently. Electric charge, Coulomb's law, electrostatic forces, electric field, Gauss' law, electric potential, stored energy. Dielectrics, properties of materials in electric fields. Electric current, conduction in a vacuum and in material media, displacement current, magnetic field of a current, force on a current-carrying wire, magnetic induction, electromotive force, energy stored in a magnetic field. Magnetism in material media, magnetic circuits. Time-varying fields. Capacitance, resistance, inductance, elements of electric circuits. Lectures: three hours per week. Tutorial: one hour per week.

ELEC 311 ***Electronics I*** (4.5 credits)
Prerequisite: ENGR 274. Review of linear circuits: different types of amplifiers, frequency response of amplifiers, network theorems. Inverting and noninverting configurations of operational amplifier circuits, non-ideal performance of operational amplifiers: finite open-loop gain, bandwidth, slew rate, common-mode rejection, finite input and output resistances, dc problems. Characteristics and physical operation of junction diodes. Breakdown region and Zener diodes, modelling of diodes. Half- and full-wave rectifiers, precision rectifiers, rectifiers in power supplies. Limiters, clampers, and comparators. Physical operation and characteristics of field-effect and bi-polar junction transistors. Biassing, modes of operation, dc analysis, modelling, second-order effects and small-signal operation. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week.

ELEC 312 ***Electronics II*** (4.5 credits)
Prerequisite: ELEC 341 previously or concurrently. Biasing of transistors for discrete and integrated circuit designs. Single-stage amplifiers in different configurations, differential amplifiers, multistage amplifiers. High frequency modelling of transistors. Frequency response of common-source, common-emitter, emitter-follower, common-base, cascode, cascade, and differential-pair configurations. Wideband amplifiers. Negative feedback and feedback topologies in amplifier circuits. Stability problems, frequency compensation. Introduction to oscillator circuits. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week.

ELEC 318 ***Industrial Electronics*** (3.75 credits)
Prerequisite: ENGR 274. A survey of electronic components and systems used in industry. Analog devices; the transistor, the operational amplifier and their models. Amplifiers. Digital devices: gates, logic devices. Large scale integrated circuits, microcomputers. Lectures:

three hours per week. Tutorial: one hour per week. Laboratory: three hours per week; alternate weeks.
NOTE: Electrical Engineering and Computer Engineering students may not take this course for credit.

ELEC 321 ***Introduction to Semiconductor Materials and Devices*** (3 credits)
Prerequisite: ELEC 251. The structure of crystals. The energy band model for electrical conduction in solids. The semiconductor in equilibrium. P-type and N-type semiconductors. Carrier transport and non-equilibrium phenomena. Introductions to junctions and devices. Lectures: three hours per week.

ELEC 331 ***Electromechanics*** (3.75 credits)
Prerequisite: ELEC 251; ENGR 274 previously or concurrently. Three-phase circuits. Power transformers. Energy in singly and doubly excited systems; principles of electromechanical energy conversion. Basic features and models of dc machines, three-phase induction machines, three-phase synchronous machines. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 334 ***Electric Machinery*** (3.75 credits)
Prerequisite: ENGR 274. Three-phase circuits. Magnetic fields, circuits, and forces; transformers; basic features of rotating machines; models, characteristics and applications of dc machines, polyphase synchronous and induction machines. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.
NOTE: Computer Engineering and Electrical Engineering students may not take this course for credit.

ELEC 341 ***Linear Network Analysis*** (3.75 credits)
Prerequisite: EMAT 312; ELEC 311. The s-plane and system functions. Network topology and equilibrium equations. One- and two-port networks. Indefinite admittance matrix and applications. Simple filter circuits. State variable analysis. Signal flow graphs. Adjoint networks and sensitivity computation. Discussion of one computer-aided analysis programme: SPICE. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks. Tutorial: one hour per week.

ELEC 351 ***Electromagnetic Waves and Guiding Structures*** (3 credits)
Prerequisite: EMAT 312 previously or concurrently; ELEC 251. Review of the differential forms of the laws of electromagnetism. Maxwell's equations. Boundary conditions. Power and energy. Uniform plane waves. Transmission line theory. Rectangular waveguides. Lectures: three hours per week. Tutorial: one hour per week.

ELEC 353 ***Basic Electromagnetics and Transmission Line Theory*** (3 credits)
Prerequisite: EMAT 312; ELEC 341. Laws of electromagnetism, including differential forms. Boundary conditions. Maxwell's equations. Transmission line theory. Lectures: three hours per week. Tutorial: one hour per week.

ELEC 401 ***Electrical Engineering Seminar*** (1 credit)
Prerequisite: ENCS 281. Seminars are organized on a regular basis to provide students with an opportunity to exercise their ability to present and defend their thoughts on topics of their own choice. Students will be encouraged to devote some of their presentations to such topics as continuing professional education and professional ethics. Seminars: two hours per week.

ELEC 411 ***Pulse and Waveform Generation*** (3.75 credits)
Prerequisite: EMAT 312; ELEC 312. Modelling and techniques of analysis. Multivibrator circuits: analysis, design, and applications. Oscillator circuits. Linear sawtooth generators. Pulse transformers and blocking oscillators. Negative-resistance devices and some applications. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 421 ***Solid State Devices*** (3.75 credits)
Prerequisite: ELEC 321. P-n junction technology. Introduction to quantum mechanics and the quantum theory of solids. Basic physical mechanisms of several types of junctions and devices, including p-n junctions, Schottky diodes, heterojunctions, and optical devices. An introduction to physical principles of the bipolar transistor. Planar silicon diodes and bipolar transistors will be designed, fabricated and evaluated in the laboratory, including resistivity measurements, semiconductor cleaning, oxidation, diffusion, photolithography, etching, metallization, and comparison of design with experimental results. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 422 ***Design of Integrated Circuit Components*** (3.75 credits)
Prerequisite: ELEC 421. The structure, characteristics and design of integrated circuit device components, including bipolar transistors, JFETs, MOS capacitors, MOSFETs. Fabrication of integrated circuits: mask layout, interconnection, yield, performance. Planar MOS devices, including capacitors and MOSFETs will be designed, fabricated, and evaluated in the laboratory, including semiconductor cleaning, oxidation, diffusion, photolithography, etching, metallization, C-V analysis, thin film characterization, and

comparison of design with experimental results. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 431 ***Electrical Power Systems*** (3.75 credits)
Prerequisite: ELEC 331. Inductance, capacitance, resistance of polyphase transmission lines; current and voltage relations of transmission lines; load flow studies; symmetrical and unsymmetrical faults; power system stability. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 432 ***Control of Electrical Power Conversion Systems*** (3.75 credits)
Prerequisite: ENGR 372; ELEC 331. Basic considerations and control requirements. Control system principles and structures. Controller characteristics and operation. Static power conversion systems. Electromechanical systems and electrical machine modelling. Control system design. Applications to electric motor drives and typical power conversion systems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 433 ***Static Power Converters*** (3.75 credits)
Prerequisite: ENGR 372; ELEC 311; ELEC 331. The principles and classification of power converters; types of commutation and power switches. Diode and thyristor line-commutated converters; rectifier and inverter operation. Ac controllers and dc inverters; voltage and current source inverters. PWM patterns and practical considerations. Power supplies for computer and aerospace applications. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 441 ***Modern Filter Design*** (3.75 credits)
Prerequisite: ELEC 341. Image parameters, constant-k, and m-derived filters. The approximation problem. Design of Butterworth, Tchebyscheff, and Bessel filters as terminated lossless networks. Design of constant-resistance all-pass networks. Design of active-RC filters using operational amplifiers. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 442 ***Introduction to Digital Signal Processing*** (3.75 credits)
Prerequisite: ELEC 341. Discrete-time linear systems. Basic digital signal processing techniques. Design procedures for finite and infinite impulse response filters. Discrete and fast Fourier transforms. Noise analysis. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 453 ***Microwave Engineering*** (3.75 credits)
Prerequisite: EMAT 312; ELEC 341; ELEC 351. Properties of waveguides, striplines, and microstrips. Scattering parameters. Binomial and Chebyshev impedance transformers. Microwave couplers, cavities, and Fabry-Perot resonators. Periodic structures. Filter design. Faraday rotation and non-reciprocal devices. Basic antenna theory, linear dipoles, linear arrays. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 454 ***Optical Electronics*** (3.75 credits)
Prerequisite: EMAT 312; ELEC 341; ELEC 351. Properties of dielectric and fibre waveguides. Multilayer optical impedance transformation. Optical couplers, gratings, and distributed feedback structures. Principles of electro-optic devices. Introferometric devices. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 455 ***Acoustics*** (3 credits)
Prerequisite: ELEC 351. Sound generation and propagation in elastic media; conversion between acoustical, electrical, and mechanical energy. Lumped-parameter approximations, sound in rooms, underwater acoustics, microphones; loudspeakers and audio communications problems; noise and vibration control problems. Lectures: three hours per week.

ELEC 456 ***Antennas*** (3 credits)
Prerequisite: EMAT 391; ELEC 351 or ELEC 353. Antenna fundamentals and definitions. Radiation integrals. Dipoles and loops. Arrays. Antenna self and mutual impedance. Matching techniques. Travelling wave antennas. Broadband antennas. Equivalence principle. Aperture antennas. Numerical techniques. Antenna measurement techniques. Lectures: three hours per week.

ELEC 461 ***Communication Circuits and Systems*** (3.75 credits)
Prerequisite: EMAT 312; ELEC 312. Systems and signal analysis: Fourier transformation and Fourier series, spectral analysis, concepts of bandwidth and power. Principle of amplitude (DSB-SSB-VSB), phase and frequency modulation schemes. Basic communication circuits: multipliers, mixers, envelope detectors, frequency discriminators, filters, tuned circuits, limiters, oscillators, phase-locked loops. Commercial broadcasting and reception systems: AM, FM, Stereo FM, TV. Noise in communication systems: thermal noise, noise bandwidth, noise figures, noise temperature. Qualitative treatment of modulation systems (AM, FM) in the presence of noise. Principles of signal-to-noise ratio, pre-emphasis and de-emphasis. Comparative performance. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 462 ***Statistical and Digital Communications*** (3.75 credits)
Prerequisite: EMAT 271 or ENGR 371;

ELEC 461. Transmission and filtering of random signals, analysis of modulation systems, in particular pulse code modulation, phase shift keying, frequency shift keying, etc., and introduction to noise analysis, information theory and coding. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

ELEC 463 ***Telecommunication Networks*** (3 credits)
Prerequisite: ENGR 371. Introduction to layered network architecture; data link control and communication channels. Delay models in data networks; simple queueing systems; multi-access communications; ALOHA, CSMA, reservation schemes, conflict-free access schemes. Satellite, packet radio networks, token rings and polling; routine and flow control; ISDN. Lectures: three hours per week.

ELEC 471 ***Random Processes*** (3 credits)
Prerequisite: ENGR 371. Definition and classification of random processes; ergodicity and stationarity; auto and cross correlations; power spectral density Gaussian processes; linear transformations, estimation, and prediction; nonlinear transformations (full- and half-wave rectification); diffusion processes, Markov chains, Markov processes, Poisson processes, application to queueing. Lectures: three hours per week.

ELEC 498 ***Topics in Electrical Engineering*** (3 credits)
Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Electrical Engineering Department. The course content may vary from offering to offering and will be chosen to complement the elective courses available in a given option or options. Lectures: three hours per week.

INDUSTRIAL ENGINEERING

INDU 313, 320, 372, 410, 412 (Laboratory only), 421, 480 were first offered in their new form in January 1995.

INDU 211 ***Introduction to Industrial Engineering*** (3 credits)
Introduction to industrial engineering practice and concepts, including activity planning and control, human performance, resource allocation, and operations improvement. Illustrations of such functions in manufacturing, commercial, government or service organizations. Discussions and solution of problems which relate to the design and operation of integrated systems of humans, machines, information, and materials. Lectures: three hours per week.

INDU 311 ***Simulation of Industrial Systems*** (3.5 credits)
Prerequisite: ENGR 371. Modelling techniques in simulation; application of discrete simulation techniques to model industrial systems; random number generation and testing; design of simulation experiments using different simulation languages; output data analysis. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks. Tutorial: one hour per week.

INDU 313 ***Industrial Economics*** (3 credits)
Prerequisite: ACCO 213. Economic analysis for engineering decision making; the finance function in an industrial enterprise, time value of money; basic interest formulas; annual cost comparison; present value analysis; rate of return; depreciation and taxes; multiple alternatives; mathematical models for equipment replacement; break-even, sensitivity, and risk analysis; introduction to decision analysis; concepts of cost engineering. Lectures: three hours per week.

INDU 320 ***Production Engineering*** (3 credits)
Prerequisite: INDU 323. The systems approach to production; interrelationships among the component blocks of the system, including capacity planning, material requirements planning (MRP), scheduling, line balancing, project planning and management, job design and work measurement. An overview of forecasting techniques, inventory models, just-in-time manufacturing systems, and quality management. Lectures: three hours per week. Tutorial: one hour per week.

INDU 323 ***Industrial Operations Research*** (3 credits)
Prerequisite: COMP 212. An introduction to deterministic mathematical models with emphasis on linear programming. Applications to production, logistics, and service systems. Computer solution of optimization problems. Lectures: three hours per week.

INDU 330 ***Organizational Management*** (3 credits)
Organizational structures, their growth and change. Motivation, leadership, and group behaviour. Design of alternatives for improving organizational performance and effectiveness. Lectures: three hours per week.

INDU 372 ***Quality Control and Reliability*** (3 credits)
Prerequisite: ENGR 371. Importance of quality; total quality management; statistical concepts relevant to process control; control charts for variables and attributes; sampling plans. Introduction to reliability models and acceptance testing; issues of standardization. Lectures: three hours per week. Tutorial: one hour per week.

INDU 410 ***Safety Engineering*** (3 credits)
Prerequisite: INDU 412. Fundamentals of system safety; fault tree analysis and risk assessment; codes and regulations; hazard

evaluation and control; design criteria. Applications in ventilation; air cleaning; process alteration; radiation; heat; noise and vibration. Lectures: three hours per week. Tutorial: one hour per week.

INDU 411 ***Computer Integrated Manufacture and Assembly*** (3.75 credits)
Prerequisite: ENGR 372 previously or concurrently; MECH 311. Concepts and benefits of integrated computer-aided manufacturing and assembly illustrated with case studies. Control of machine tools (NC, CNC, DNC) with an introduction to computer and direct numerical control, integration with CAD. Robots in manufacturing applications. Survey of kinematic structures in robots, typical applications in tool- and work-handling, path control. Computerized material handling. Reduction of storage requirements and transfer time. Computerized conveyor systems. Automatic guided vehicles. Overall factory automation. Design of work centres, work cells, optimal manufacturing operations, computer-aided inspection and quality control. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

INDU 412 ***Human Factor Engineering*** (3.75 credits)
Prerequisite: INDU 320. Elements of anatomy, physiology, and psychology; auditory and visual display engineering; engineering anthropometry; design of work places, human-machine system design; shift work; acquisition and retention of skill; human reliability. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

INDU 421 ***Facilities Design and Material Handling Systems*** (3.75 credits)
Prerequisite: INDU 320. An introduction to planning and design of production and service systems. Topics include plant location, layout, material handling systems and equipment specifications. Course work includes computer-aided layout techniques. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks. Tutorial: one hour per week.

INDU 423 ***Production and Inventory Control*** (3.75 credits)
Prerequisite: INDU 320. Inventory analysis and control systems; the role of forecasting in controlling inventories; the role of inventories in physical distribution; work in process inventories; just-in-time manufacturing systems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

INDU 463 ***Industrial Automation*** (3 credits)
Prerequisite: ENGR 372. Introduction to mechanization of industrial processes such as machining, material handling, assembling, and quality control; selection of actuators and sensors for mechanization; design of sequential control circuits using classical methods, ladder diagram, travel-step diagram and cascade method; specifying control sequences using GRAFCET and FUP; special purpose circuits such as emergency circuits, timers, and programmable logic controllers (PLCs); case studies dealing with typical industrial manufacturing processes and computer simulation. Lectures: three hours per week.

INDU 466 ***Decision Models in Service Sector*** (3 credits)
Prerequisite: ENGR 371; INDU 320. The course surveys applications of decision models in the service sector. Efficiency and effectiveness issues in the service sector such as police deployment, municipal resource allocation, health care, and criminal justice models are covered. Case studies from Canada and other countries are discussed using operations research, operations management, and statistical techniques. Lectures: three hours per week. *NOTE: This is the same course as DESC 466 with the exception of prerequisites.*

INDU 471 ***Stochastic Models in Industrial Engineering*** (3 credits)
Prerequisite: ENGR 371. Overview of probability theory; probability distributions; exponential model and Poisson process; discrete-time and continuous-time Markov chains; classification of states; birth and death processes; queueing theory. Application to industrial engineering problems. Lectures: three hours per week. *NOTE: Students who have received credit for INDU 371 may not take this course for credit.*

INDU 475 ***Advanced Concepts in Quality Improvement*** (3 credits)
Prerequisite: ENGR 371. The foundations of modern quality improvement, scientific basis of quality engineering, statistical experimental design issues such as randomized blocks, factorial designs at two levels, applications on factorial designs, building models, and explanation and critique of Taguchi's contributions. Lectures: three hours per week.

INDU 480 ***Industrial Engineering Project*** (4 credits)
Prerequisite: 20 courses in the Industrial Engineering programme. Students are assigned, as individuals or as small groups, specific industrial engineering projects. It is expected that these projects will be drawn from local industry. Students give an oral presentation and prepare a project report under the supervision of a faculty member. Lectures: one hour per week, one term. Equivalent laboratory time: three hours per week, two terms.

INDU 481 ***Industrial Engineering Seminar*** (0.5 credit)
Prerequisite: INDU 480 concurrently. Students are given the opportunity to make oral presentations of the work carried out for their

project. These presentations will be videotaped and used as a teaching tool to improve verbal communication abilities. Seminar: one hour per week.
NOTE: This course is not open to students admitted after the 1992-93 academic year.

INDU 498 ***Topics in Industrial Engineering*** (3 credits)
Prerequisite: Permission of the Department chair. This course may be offered in a given year upon the authorization of the Mechanical Engineering Department. The course content may vary from offering to offering and will be chosen to complement the elective courses available in the Industrial Engineering programme. Lectures: three hours per week.

MECHANICAL ENGINEERING

MECH 211 ***Mechanical Engineering Drawing*** (2 credits)
Prerequisite: ENGR 211. Points, lines, planes, and solids. Intersection of planes and solids. Development of surfaces. Pictorial representation of three-dimensional objects. Graphs and charts. Tolerances, fits, and deviations from geometrical shape. Mechanical drives. Detail drawings and assembly drawings. Changes. Lectures: two hours per week. Tutorial: two hours per week.

MECH 221 ***Materials Science*** (2 credits)
Prerequisite: CHEM 205 (CEGEP Chemistry 101). Relationships between properties and internal structure, atomic bonding; molecular, crystalline and amorphous structures; crystalline imperfections and mechanisms of structural change; microstructures; structures and mechanical properties of polymers. Lectures: two hours per week. Tutorial: two hours per week.
NOTE: Students who have received credit for ENGR C221 may not take this course for credit.

MECH 311 ***Manufacturing Processes*** (2.5 credits)
Prerequisite: MECH 313. Fundamentals of manufacturing processes and their limitations, metrology, machine shop practice, forming, machining and casting processes, welding and joining, plastic production, and non-conventional machining techniques. Laboratory includes use of basic machines, preparation of shop drawings with emphasis on production and field trips to local industries. Lectures: two hours per week. Tutorial: four hours per week, alternate weeks, including industrial visits. Laboratory: two hours per week, alternate weeks.

MECH 313 ***Machine Drawing and Design*** (3 credits)
Prerequisite: ENGR 213. The use of drawings and other graphical methods in the process of engineering design. Industrial standards and specifications, standard components and their use in product design. Detailed study of machine elements and assemblies, their representation and function in design and working drawings. Dimensioning and tolerance systems related to manufacturing processes, interchangeability, quality control, patent procedures. Pencil thinking and computer graphics in the design process. Computer-aided machine drawing. A student design project will be an integral part of this course. An eight hour introduction to machine shop techniques forms part of the tutorial. Lectures: three hours per week. Tutorial: two hours per week.
NOTE: Students who have received credit for ENGR C214 and MECH C312 may not take this course for credit.

MECH 321 ***Properties and Failure of Materials*** (3.5 credits)
Prerequisite: MECH 221. The service capabilities of alloys and their relationship to microstructure as produced by thermal and mechanical treatments; material codes; material selection for design; strengthening mechanisms, composite materials. Modes of failure of materials; fracture, fatigue, wear, creep, corrosion, radiation damage. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

MECH 341 ***Kinematics and Dynamics of Mechanisms and Manipulators*** (2.5 credits)
Prerequisite: EMAT 232; ENGR 243. Geometry of motion and mobility criteria; planar and spatial mechanisms; general relationship governing relative motion, displacement, velocity, acceleration and Coriolis acceleration. Vector calculus, complex vectors, and graphical methods for velocity and acceleration. Instantaneous centres; line of centres method for velocity determination. Static and dynamic force analysis of planar mechanisms; effect of friction forces; static force-torque relationship for manipulators; virtual work method; dynamics of manipulators. Lectures: two hours per week. Tutorial: two hours per week, alternate weeks. Laboratory: two hours per week, alternate weeks.

MECH 342 ***Theory of Machines*** (2.5 credits)
Prerequisite: MECH 341. Cam kinematics; cam layout; basic follower motions; pressure angle; cam curvature constraints. Velocity, acceleration and jerk of cam followers. Kinematics of spur gears; standard teeth-layout of gear and pinion; involutometry; contact ratio; non-standard gears. Helical gears for parallel and crossed shafts; worm gear layout. Straight bevel gears, spiral and hypoid bevel gears. Gear trains; planetary gear trains. Differentials and differential screws. Force analysis of gears. Gyroscopic effect in machines. Static and dynamic balancing of rotating masses reciprocating machinery with single and multiple cylinders. Lectures: two

hours per week. Tutorial: two hours per week, alternate weeks. Laboratory: two hours per week, alternate weeks.

MECH 351 ***Thermodynamics II*** (3.75 credits)
Prerequisite: COMP 212; ENGR 251. Brief review of ideal gas processes. Semi-perfect gases and the gas tables. Mixtures of gases, gases and vapours, air conditioning processes. Combustion and combustion equilibrium. Applications of thermodynamics to power production and utilization systems: study of basic and advanced cycles for gas compression, internal combustion engines, power from steam, gas turbine cycles, and refrigeration. Real gases. The Maxwell equations. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

MECH 352 ***Heat Transfer I*** (3.75 credits)
Prerequisite: EMAT 311. Analytical and numerical methods for steady-state and transient heat conduction. Empirical and practical relations for forced- and free-convection heat transfer. Radiation heat exchange between black bodies, and between non-black bodies. Gas radiation. Solar radiation. Effect of radiation on temperature measurement. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 361 ***Fluid Mechanics II*** (3.75 credits)
Prerequisite: ENGR 361. Selected solutions of the Navier-Stokes equations. Introduction to turbulent flow. Fully developed pipe and duct flows, major and minor losses, flow measurement. Euler equations, potential flows, superposition of elementary plane flows. Boundary layers, flow about immersed bodies. Propagation of sound waves, isentropic flow of ideal gases in one dimension, stagnation properties, normal shocks. Introduction to open channel flows. Laboratory experiments: flow visualization, laminar and turbulent pipe flows, lift and drag of airfoils, Stokes' flow, numerical solution of potential flows. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 373 ***Instrumentation and Measurements*** (3.75 credits)
Prerequisite: ENGR 274. Unified treatment of measurement of physical quantities. Principle characteristics, design, and calibration of components and systems for measuring position, velocity, acceleration, force, pressure, flow-rate, temperature, proximity detection, etc. Background knowledge of electronics covering signal generation, processing, and data acquisition. Concepts of accuracy and repeatability, linearity, response criteria, bandwidth, input and output impedance, matching of measuring systems, drift and bias. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 411 ***Design and Analysis of Mechanical Components*** (2.5 credits)
Prerequisite: MECH 311. Analytical review of current design practices and specification of standard components encountered in mechanical engineering. Introduction to overall system reliability estimates, interchangeability of mechanical devices and influence of stress-strength in determining the actual configuration of mechanical elements. Standard components covered include various types of mechanical drives, cams, clutches, couplings, brakes, seals, fasteners, springs, and bearings. Lectures: two hours per week. Tutorial: two hours per week. Laboratory: two hours per week, alternate weeks.

MECH 412 ***Computer-Aided Mechanical Design*** (3.75 credits)
Prerequisite: MECH 313; MECH 411. Introduction to computer hardware, graphical input and output devices; computer-aided drawing; generation of points, vectors, 2D modelling, windowing, rotation, plane curves, 3D modelling and transformations; projections, space curves and surfaces, elimination of hidden lines and surfaces; orthographic and axonometric drawings; computer-aided linkage design; computer-aided design and analysis of machine elements; introduction to finite element methods with applications. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 421 ***Mechanical Shaping of Metals, Plastics and Composites*** (3.75 credits)
Prerequisite: MECH 221. Metal forming: extrusion, forging, rolling, drawing, pressing, compacting; shear line theory, sheet forming limits. Metal cutting, machinability, tooling. Plastics/composites shaping: extrusion, pultrusion, moulding, vacuum forming, lay-up, filament winding, laminating. Consideration of the mechanical parameters critical for process control and computer applications. Interaction of materials characteristics with processing to define product properties: cold working, annealing, hot working, super plasticity, thermomechanical treatment. Energy conservation, safety, product quality, and liability. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 422 ***Mechanical Behaviour of Polymer Composite Materials*** (3 credits)
Prerequisite: ENGR 244; MECH 221. General applications of polymer composite materials in aircraft, aerospace, automobile, marine, recreational, and chemical processing industries. Different fibres and resins. Mechanics of a unidirectional lamina. Transformation of stress, strain, modulus, and

compliance. Off-axis engineering constants, shear and normal coupling coefficients. In-plane and flexural stiffness and compliance with different laminates, including cross-ply, angle-ply, quasi isotropic, and general bidirectional laminates. Strength of laminates and failure criteria. Micromechanics. Lectures: three hours per week.

MECH 423 ***Casting, Welding, Heat Treating, and Non-Destructive Testing*** (3.75 credits)
Prerequisite: MECH 221. Comparative analysis of the various techniques of casting, welding, powder fabrication, finishing, and non-destructive testing. Consideration of the control parameters that are essential to define both automation or robot application. Materials behaviour which determines product micro-structure and properties. Technology and theory of solidification, normalizing, quenching, surface hardening, tempering, aging, and thermo-mechanical processing for steels, cast irons and A1, Cu, Ni and Ti alloys. Energy conservation, worker safety, quality control, and product liability. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

MECH 424 ***Design and Fabrication of Micromachines and Micromechanisms*** (3.75 credits)
Prerequisite: MECH 311, 342. Introduction to micromachining processes; mechanical properties of materials used in micromechanical systems; design and fabrication of free standing structures; sacrificial and structural layers; finite element modelling; micromechanical components; solid lubrication of microbearings; special techniques: double-side lithography, anodic bonding, electro-chemical drilling, deep etching, LIGA process, laser microfabrication; influence of IC fabrication processes on the mechanical properties; applications in microdevices; simulation and packaging. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 425 ***Manufacturing of Composites*** (3 credits)
Prerequisite: MECH 311. Hand lay up. Autoclave curing. Compression molding. Filament winding. Resin transfer molding. Braiding. Injection molding. Cutting. Joining. Thermoset and thermoplastic composites. Process modelling and computer simulation. Non-destructive evaluation techniques. Lectures: three hours per week.

MECH 431 ***Principles of Aeroelasticity*** (3 credits)
Prerequisite: EMAT 311; ENGR 243. Aero-dynamic loading of elastic airfoils. Phenomenon of divergence. Effect of flexible control surface on divergence of main structure. Divergence of one- and two-dimensional wing models. Phenomenon of flutter. Flutter of two- and three-dimensional wings. Flutter prevention and control. Panel flutter in high speed vehicles, flutter of turbomachine bladings, galloping vortex-induced oscillations, bridge buffeting. Lectures: three hours per week.

MECH 441 ***Mechanical Engineering Design*** (3 credits)
Prerequisite: ENGR 244; MECH 313; MECH 342. Concepts in design; failure of mechanical elements under dynamic loading; shafting; bolted and welded joints; anti-friction and journal bearings; design of gears. Lectures: two hours per week. Laboratory: two hours per week.

MECH 443 ***Mechanical Vibrations*** (3.75 credits)
Prerequisite: EMAT 311; ENGR 274; MECH 342. Transient vibrations under impulsive shock and arbitrary excitation: normal modes, free and forced vibration. Multi-degree of freedom systems, influence coefficients, orthogonality principle, numerical methods. Continuous systems; longitudinal torsional and flexural free and forced vibrations of prismatic bars. Lagrange's equations. Vibration measurements. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

MECH 444 ***Guided Vehicle Systems*** (3 credits)
Prerequisite: MECH 443. Definition and classification of guided transportation systems. Track characterization: alignment, gage, profile, and cross-level irregularities. Wheel-rail interactions: rolling contact theories, creep forces. Modelling of guided vehicle components: wheelset, suspension, truck and car body configurations, suspension characteristics. Performance evaluation: stability/hunting, ride quality. Introduction to advanced guided vehicles.

MECH 445 ***Machine Design*** (4 credits)
Prerequisite: MECH 441. Design of springs; design of gear and hydraulic drives, design for hydrodynamics and hydrostatic lubrication; optimum design of mechanical systems, design strategy, value and merit function, maximizing and minimizing procedures. Laboratory work includes an advanced design project representative of those encountered in industry. Equivalent laboratory time: four hours per week, two terms.
NOTE: Not available for credit for students taking ENGR 481.

MECH 446 ***Process Equipment Design*** (3 credits)
Prerequisite: MECH 321. Design of pressure vessels, towers, reactors, tanks, heat exchangers, piping systems, etc. as used in the petro-chemical, power generation, pulp and

paper, and related industries. Compliance with pertinent codes and regulations; detailed analysis of shells, formed heads, flat closures; expansion stresses; wind and earthquake effects. Application to actual problems from industry. Lectures: three hours per week.

MECH 447 ***Fundamentals of Vehicle System Design*** (3 credits)
Prerequisite: MECH 342. Mechanics and construction of wheels and tires: rolling resistance, tractive and braking forces, brake system design: components of mechanical, hydraulic and pneumatic brake systems, braking efficiency, antilock braking devices, performance characteristics of road vehicles: transmission design, driving condition diagrams, acceleration, speed and stopping distance, gradability, steering mechanisms: design and kinematics, suspension spring and shock absorbers: anti-roll and anti-pitch devices, chassis and body design considerations. Lectures: three hours per week.

MECH 448 ***Vehicle Dynamics*** (3 credits)
Prerequisite: MECH 447 previously or concurrently. Tire-terrain interactions; side-slip, cornering and aligning properties of tires; camber angle and camber torque; estimation of braking/tractive and cornering forces of tires; steady-state handling of road vehicles; steering response and directional stability; handling and directional response of vehicles with multiple steerable axles; handling of articulated vehicles; handling and directional response of tracked and wheeled off-road vehicles; directional response to simultaneous braking and steering.

MECH 452 ***Heat Transfer II*** (3.75 credits)
Prerequisite: MECH 352; MECH 361. Heat exchangers. Condensation and boiling heat transfer. Principles of forced convection. Analysis of free convection from a vertical wall. Correlations for free convection in enclosed spaces. Mass transfer. Special topics of heat transfer. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 453 ***Heating, Ventilation and Air Conditioning Systems*** (3 credits)
Prerequisite: MECH 352. Heating and cooling load calculation. Overview of heating and air conditioning systems. Review: Vapour compression refrigeration cycles, refrigerant properties, psychometrics. Performance characteristic of components: evaporators, condensers, compressors, throttling devices (expansion valves, capillary tubes). System performance characteristics: calculation of system operating conditions based on the capacities of its components and outdoor and indoor conditions. Controls: operational, capacity. Computer-aided design methods. Defrosting. Estimation of energy consumption for heating with heat pumps. Fundamentals of refrigerant piping, water piping, and air distribution systems. Experimental methods for system development. Lectures: three hours per week.

MECH 454 ***Vehicular Internal Combustion Engines*** (3 credits)
Prerequisites: MECH 351; ENGR 362. Mechanical design of vehicular engines for different applications. Gas exchange and combustion engine processes. Combustion chambers design. Fuels for vehicular engines. Fuel supply, ignition and control systems. Cooling and lubrication of engines. Emissions formation and control. Engines 'operational characteristics — matching with vehicles. Enhancement of engine performance. Engine testing. Environmental impact of vehicular engines on global pollution. Recent developments in energy efficient and "clean" engines. Design or calculation project of vehicular engine.

MECH 461 ***Gas Dynamics*** (3.75 credits)
Prerequisite: ENGR 362; MECH 351. Review of one-dimensional compressible flow. Normal and oblique shock waves; Prandtl-Meyer flow; combined effects in one-dimensional flow; non-ideal gas effects; multi-dimensional flow; linearized flow; method of characteristics. Selected experiments in supersonic flow, convergent-divergent nozzles, hydraulic analogue and Fanno tube. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 462 ***Turbomachinery and Propulsion*** (3 credits)
Prerequisite: ENGR 362; MECH 351. Review of the gas turbine cycle and components arrangement. Types of turbo-propulsion for aircraft: turboprop, turbofan, and turbojet. Energy transfer in incompressible and compressible turbomachines: the Euler equation, velocity triangles. Axial-flow compressors; mean-line analysis. Mechanisms of losses in turbomachines. Three-dimensional motion in turbomachines; the radial equilibrium equation and its numerical solution by finite difference methods (computer project). Dimensional analysis of incompressible and compressible flow in turbomachines, compressor and turbine performance maps; surge and stall. Centrifugal compressors. Axial-flow turbines. Prediction of performance of gas turbines, components matching. Lectures: three hours per week.

MECH 463 ***Fluid Power Control*** (3.75 credits)
Prerequisite: ENGR 361; ENGR 372. Introduction to fluid power; pneumatic devices; fluidic devices; hydraulic system components; hydraulic and electro-hydraulic systems; dynamic performance of fluid power systems; fluid logic. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 464 ***Aerodynamics*** (3 credits)
Prerequisite: MECH 461. Flow conservation equations, incompressible Navier-Stokes

equations, inviscid irrotational and rotational flows: the Euler equations, the potential and stream function equations. Dynamics of an incompressible inviscid flow field: the Kelvin, Stokes, and Helmholtz theorems. Elementary flows and their superposition, panel method for non-lifting bodies. Airfoil and wing characteristics, aerodynamic forces and moments coefficients. Incompressible flows around thin airfoils, Biot-Savart law, vortex sheets. Incompressible flow around thick airfoils, the panel method for lifting bodies. Incompressible flow around wings, Prandtl's lifting line theory, induced angle and down-wash, unswept wings, swept wings. Compressible subsonic flow: linearized theory, Prandlt-Glauert equation and other compressibility correction rules, the area rule. Transonic flow: Von Karman's ransonic small disturbance equation, transonic full potential equation, supercritical airfoils. Lectures: three hours per week.

MECH 465 ***Gas Turbine Design*** (3.75 credits)
Prerequisite: MECH 462; MECH 464 concurrently. Study of practical criteria which influence the design of a gas turbine engine, including relevant mechanical and aerodynamic constraints. The aerodynamics of each of the three major components of a modern turbo-fan engine, namely the compressor, the combustor, and the turbine is considered. Air system acoustics, engine aerodynamic matching of components, and modern performance testing methods. A design project is assigned for each of these components. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 471 ***Microprocessors and Applications*** (3.75 credits)
Prerequisite: ELEC 318. Introduction to the concepts and practices of using microprocessors and microcomputers in such applications as instrumentation, manufacturing, control, and automation; architecture and programming techniques; interface logic circuits: I/O systems; case studies of engineering applications. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 472 ***Driverless Ground Vehicles*** (3 credits)
Prerequisite: ENGR 372. Definition and classifications; case studies of major industrial and research vehicle prototypes; applications; kinematic modelling for feedback control of a driverless vehicle as a planar rigid body; vehicle motion and its relation to steering and drive rates of its wheels; coordinate systems assignment, transformation matrices; condition for rolling without skidding and sliding; sensor models and sensor integrations; dead-reckoning control; global and local path planning; introduction to dynamic modelling of driverless vehicle with and without the dynamics of wheel assemblies; design of optimal controllers; introduction to adaptive neuromorphic controller. Projects are an integral part of the course for which the following may be used: TUTSIM, FORTRAN, or C.

MECH 498 ***Topics in Mechanical Engineering*** (3 credits)
Prerequisite: Permission of the Department chair. This course may be offered in a given year upon the authorization of the Mechanical Engineering Department. The course content may vary from offering to offering and will be chosen to complement the elective courses available in a given option or options. Lectures: three hours per week.

71.80 DEPARTMENT OF COMPUTER SCIENCE

Faculty

Chair
CLEMENT LAM, *Professor*

Professors
VANGALUR S. ALAGAR
TIEN D. BUI
EUSEBIUS J. DOEDEL
H.F. LI
JOHN MCKAY
THIRUVENGADAM RADHAKRISHNAN
CHING Y. SUEN

Associate Professors
J. WILLIAM ATWOOD
GREGORY BUTLER
B.C. DESAI
TERRILL FANCOTT
DAVID FORD
PETER GROGONO
WOJCIECH M. JAWORSKI
R. JAYAKUMAR
S.L. KLASA
ADAM KRZYZAK
VIRAVANALLUR S. LAKSHMANAN
TAO LI
GRAHAM MARTIN
JAROSLAV OPATRNY
DAVID K. PROBST
FEREIDOON SADRI
RAJJAN SHINGHAL
LIXIN TAO

Assistant Professors
SABINE BERGLER
LATA NARAYANAN
MANAS SAKSENA

Lecturer
FERHAT KHENDEK

Adjunct Professor
T. KASVAND

Adjunct Associate Professors
L. LAM
M. OKADA
G. RAMANATHAN
Y.Y. TANG

Adjunct Assistant Professors
ABDERRASAK GHEDAMSI
C. GROSSNER

Location

Sir George Williams Campus
J.W. McConnell Building, 9th Floor
(514) 848-3000

Objectives

Computer Science is the study and design of computer systems: hardware and software. Computer scientists are primarily concerned with the design of algorithms, languages, hardware architecture, systems software, applications software and tools. Applications range from simple game playing to the control of space vehicles, power plants and factories, from banking machines to intelligent fault and medical diagnosis. Computer professionals, in short, are concerned with the creation of computer and information systems for the benefit of society.

71.80.1 Curriculum for the Degree of Bachelor of/Baccalaureate in Computer Science

The Computer Science programme emphasizes fundamentals and techniques that will provide the basis for the fast changing world of the future. It consists of a combination of core courses in computer science, programme courses attached to the options, and technical electives. The Computer Science core provides a basic and broad study of theory, programming methodology, computer architecture, systems architecture, data structures and databases, operating systems, and software engineering. The option courses are designed to provide an integrated and yet specialized training in particular application areas of the discipline. Each option involves the study of selected advanced elective courses in computer science, as well as courses in other disciplines, to provide further depth in computer science and the particular application area.

The Department offers the following five options: Information Systems, Software Systems, Systems Architecture, Theoretical Computer Science, and General Science. An Honours programme in Computer Science is also available. All options are offered in the co-operative format, alternating Study and Work terms, for a limited number of high-ranking students.

The **Information Systems option** focuses on the application of computers in business, with a special emphasis on databases, software engineering, and management information systems.

The **Systems Architecture option** focuses on aspects of the design of digital circuits and their integration into computer architectures.

The **Theoretical Computer Science option** focuses on numerical analysis and symbolic computation.

The **General Science option** permits the student to define an area of speciality within the sciences. The **Software Systems option** is concerned with the design and analysis of large-scale software systems.

71.80.2 Degree Requirements

To be recommended for the degree of BCompSc, students must satisfactorily complete an approved programme of at least 90 credits comprising the courses of the Computer Science Core and those specified for their particular option in accordance with the graduation requirements in §71.10.5.

Computer Science Core
This is composed of four required courses of four credits each, five courses of three credits and two courses of two credits each for a total of 35 credits:
COMP 215[2], 220[4], 231[3], 245[3], 326[3], 335[3], 346[4], 352[3], 353[4], 354[4]; ENCS 281[2]

1. Information Systems Option
NOTE: Admission profile is 10.12. Please refer to §71.10.2.

35 Computer Science Core
1 COMP 292[1] Language Laboratory — COBOL
9 Chosen from COMP 445[3], 451[3], 457[3], 458[3], 472[3], 474[3]
3 Elective Computer Science credits chosen from COMP or ENCS courses numbered above 220 but including no more than two language laboratories.
30 ACCO 213[3], 218[3]; ECON 201[3], 203[3]; FINA 214[3]; MANA 266[3]; MARK 213[3]; DESC 243[3], 244[3], 250[3]
6 Elective credits chosen from courses having prefixes ACCO, ECON, FINA, MANA, or MARK except ACCO 220, 221; MANA 211
6 Chosen from any department*

**See note following the description of the Software Systems option.*

2. Systems Architecture Option
NOTE: Admission profile is 10.10. Please refer to §71.10.2.

35 Computer Science Core
1 Language Laboratory
3 COMP 361[3]
6 Two courses chosen from COMP 327[4], 421[4], 445[3]; ENCS 455[4]
3 Chosen from COMP or ENCS courses numbered above 220 but including no more than two language laboratories
27 EMAT 212[3], 232[3], 252[3], 312[3]; ENGR 273[3.75], 274[3.75], 371[3]; ELEC 311[4.5]
9 Chosen from ENCS 245[3], 456[3]; ENGR 372[3.75], 471[3.75]; ELEC 312[4.5], 341[3.75], 442[3.75], 461[3.75], 462[3.75]
6 Chosen from any department.*

**See note following the description of the Software Systems option.*

3. Theoretical Computer Science
NOTE: Admission profile is 10.10. Please refer to §71.10.2.

35 Computer Science Core
1 Language Laboratory
3 COMP 361[3]
6 Chosen from COMP 441[3], 465[3], 467[3]
3 Chosen from COMP or ENCS courses numbered above 220 but including no more than two language laboratories
18 MATH 242[3], 243[3], 262[3], 263[3], 282[3], 283[3]
9 Mathematics credits chosen from one of the lists below*
9 Chosen from (a) MATH 271[3] and (b) MATH courses numbered from 312 through 397 and from 427 through 499
6 Chosen from any department**

List 1* Discrete Mathematics: MATH 322[3], 381[3], 392[3], 393[3], 394[3], 432[3], 491[3], 492[3].
List 2 Numerical Methods and Operations Research: MATH 231[3], 312[3], 336[3], 337[3], 381[3], 432[3], 435[3], 436[3], 437[3].
List 3 Probability and Statistics: MATH 342[3], 343[3], 348[3], 351[3], 353[3], 448[3], 451[3], 454[3].

***See note following the description of the Software Systems option.*

4. General Science Option
NOTE: Admission profile is 10.10. Please refer to §71.10.2.

35 Computer Science Core
1 Language Laboratory
3 COMP 361[3]
9 Chosen from COMP or ENCS courses numbered above 220 but including no more than two language laboratories
18 MATH 242[3], 243[3], 262[3], 263[3], 282[3], 283[3]
18 Elective credits* chosen from:
a) those offerings of the Faculty of Arts and Science which are creditable as science credits towards a 90-credit BSc degree;
b) those offerings of the Faculty of Commerce and Administration which are creditable towards a 90-credit BComm or BAdmin degree;
c) those offerings of the Faculty of Engineering and Computer Science other than COMP 201;
d) other courses as authorized by the Student Affairs Office, in consultation with the Department.
6 Chosen from any department*

**See note following the description of the Software Systems option.*

5. Software Systems Option
NOTE: Admission profile is 10.10. Please refer to §71.10.2.

35 Computer Science Core
1 Language Laboratory
19 COMP 361[3], 442[3], 444[4], 445[3], 451[3], 465[3]
5 Chosen from COMP or ENCS courses

numbered above 220 but including no more than two language laboratories

18 MATH 242[3], 243[3], 262[3], 263[3], 282[3], 283[3]

6 Elective credits* chosen from:

a) those offerings of the Faculty of Arts and Science which are creditable as science credits towards a 90-credit BSc degree;

b) those offerings of the Faculty of Commerce and Administration which are creditable towards a 90-credit BComm or BAdmin degree;

c) those offerings of the Faculty of Engineering and Computer Science other than COMP 201;

d) other courses as authorized by the Student Affairs Office, in consultation with the Department.

6 Chosen from any department*

**Students should note that certain courses are not creditable towards some 90-credit programmes, or cover certain material already found in the Computer Science or option cores. As such they are not recognized as electives. A listing of these exclusions and other information on choice of electives is found in the Undergraduate Programme Guide. Exceptions require the approval of the Student Affairs Office.*

71.80.3 Extended Credit Programme

Students admitted to an Extended Credit Programme under the provisions of Sections 13.3.2 or 13.8.1 must successfully complete a minimum of 120 credits including:

90 Programme requirements as set out in Section 71.80.2

12 MATH 202[3], 203[3], 204[3], 205[3]

3 COMP 201[3]

15 Additional credits, as indicated below:

a) *Information Systems Option:*
15 elective credits chosen from outside the Faculty of Commerce and Administration and the Department of Computer Science.

b) *Other Options:*
CHEM 205[3]
PHYS 204[3], 205[3], 224[1], 225[1]
and at least four credits chosen from:
BIOL 201[3]; CHEM 206[3]; ECON 201[3], 203[3]; ESL 207[3], 208[3]; PHYS 206[3], 207[3], 226[1]

71.80.4 Honours Programme

Students should refer to Section 16.2.3 of the Calendar for academic regulations for the Honours programme. In addition, the following regulations apply to the BCompSc programme.

1. Applications to enter an Honours programme must be submitted to the Student Affairs Office at least three months before the start of the term in which the student wishes to enter the programme.
2. Students must complete a minimum of 30 credits towards the degree after entering an Honours programme.
3. Each Honours student's programme, including electives, requires the approval of the student's Honours adviser prior to each registration.
4. Students must achieve an Annual Weighted Grade Point Average (WGPA) of at least 3.20 to remain in an Honours programme.
5. Students who are required to withdraw from an Honours programme may continue in the regular programme of their option provided they are in acceptable or conditional standing according to the academic regulations in 71.10.3.

Course Requirements for Honours Programmes

1. Honours in Information Systems

35 Computer Science Core

1 COMP 292[1]

7 COMP 465[3], 490[3], 495[1]

6 Chosen from COMP 445[3], 451[3], 457[3], 458[3], 472[3], 474[3]

30 ACCO 213[3], 218[3]; ECON 201[3], 203[3]; FINA 214[3]; MANA 266[3]; MARK 213[3]; DESC 243[3], 244[3], 250[3]

6 Chosen from courses having prefixes ACCO, ECON, FINA, MANA or MARK except ACCO 220, 221; MANA 211

6 Chosen from any department*

*See note following the description of the Software Systems option in 71.80.2.

2. Honours in Systems Architecture

35 Computer Science Core

1 Language Laboratory

7 COMP 465[3], 490[3], 495[1]

3 COMP 361[3]

3 Chosen from COMP 327[4], 421[4], 445[3], ENCS 455[3]

27 EMAT 212[3], 232[3], 252[3], 312[3]; ENGR 273[3.75], 274[3.75], 371[3]; ELEC 311[4.5]

9 Chosen from ENCS 245[3], 456[3]; ENGR 372[3.75], 471[3.75]; ELEC 312[4.5], 341[3.75], 442[3.75], 461[3.75], 462[3.75]

6 Chosen from any department*

*See note following the description of the Software Systems option in 71.80.2.

3. Honours in Theoretical Computer Science

35 Computer Science Core
1 Language Laboratory
4 COMP 490[3], 495[1]
3 COMP 361[3]
6 Chosen from COMP 441[3], 465[3], 467[3]
18 MATH 242[3], 243[3], 262[3], 263[3], 282[3], 283[3]
9 Mathematics credits chosen from one list specified for the Theoretical Computer Science option in 71.80.2
6 Chosen from MATH 271[3] and Mathematics courses numbered from 312 through 397 and from 427 through 499
3 Chosen from COMP or ENCS courses numbered above 220 but including no more than two language laboratories
6 Chosen from any department*

*See note following the description of the Software Systems option in 71.80.2.

4. Honours in General Science

35 Computer Science Core
1 Language Laboratory
7 COMP 465[3], 490[3], 495[1]
3 COMP 361[3]
18 MATH 242[3], 243[3], 262[3], 263[3], 282[3], 283[3]
3 Chosen from COMP or ENCS courses numbered above 220 but including no more than two language laboratories
18 Elective credits* chosen from:
a) those offerings of the Faculty of Arts and Science which are creditable as science credits towards a 90-credit BSc degree;
b) those offerings of the Faculty of Commerce and Administration which are creditable towards a 90-credit BComm or BAdmin degree;
c) those offerings of the Faculty of Engineering and Computer Science other than COMP 201;
d) other courses as authorized by the Student Affairs Office, in consultation with the Department.
6 Chosen from any department*

*See note following the description of the Software Systems option in 71.80.2.

5. Honours in Software Systems

35 Computer Science Core
1 Language Laboratory
4 COMP 490[3], 495[1]
19 COMP 361[3], 442[3], 444[4], 445[3], 451[3], 465[3]
18 MATH 242[3], 243[3], 262[3], 263[3], 282[3], 283[3]
5 Chosen from COMP or ENCS courses numbered above 220 but including no more than two language laboratories
3 Elective credits* chosen from:
a) those offerings of the Faculty of Arts and Science which are creditable as science credits towards a 90-credit BSc degree;
b) those offerings of the Faculty of Commerce and Administration which are creditable towards a 90-credit BComm or BAdmin degree;
c) those offerings of the Faculty of Engineering and Computer Science other than COMP 201;
d) other courses as authorized by the Student Affairs Office, in consultation with the Department.
6 Chosen from any department*

*See note following the description of the Software Systems option in 71.80.2.

NOTE: Admission profile is 10.12.

71.80.5 Minor in Computer Science

Minor in Computer Science

15 COMP 215[2], 220[4], 231[3], 245[3], 352[3]
9 Computer Science elective credits, including at least one language laboratory.

71.80.6 Programmes in Management Information Systems

Both major and minor programmes in Management Information Systems can be found in the Commerce and Administration Section of the Undergraduate Calendar, §61.

Director
DAVID FORD, *Associate Professor*

71.80.7 The Co-operative Format

Students entering any option of the programme leading to the BCompSc degree may request permission to undertake their studies in the co-op format by following the application procedure specified in §24.
Academic content is identical to that of the regular programme, but six Study terms are interspersed with four Work terms.
Students are supervised personally and must meet the requirements specified in §71.10.8 in order to continue their studies in the co-op format.
Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Computer Science co-op committee, which includes the student's advisers.
Please refer to §24 for the schedule of Study and Work terms and the full description of admission requirements.

Please note that new course numbers have been implemented. For equivalent course numbers under the old system, please consult §200.6

COMP 201 ***Introduction to Computers and Computing*** (3 credits)
Prerequisite: MATH 202 or equivalent. History of computers; survey of computer technology and application; introduction to hardware and software; problem-solving and algorithms; data organization; programme design and development. A programming language will be introduced to develop and convey the above topics. Lectures: three hours per week. Tutorial: one hour per week.
NOTES: 1. Students who have received credit for COMP C211 or COMP 212 or COMP 215 may not take this course for credit.
2. This course may not be taken for credit in the regular undergraduate programmes in Engineering and Computer Science.

COMP 212 ***FORTRAN for Engineers and Scientists*** (3 credits)
Prerequisite: MATH 204 or CEGEP Mathematics 105; MATH 205 or CEGEP Mathematics 203. Note: It is also assumed that students have had some exposure to computers, either through a CEGEP course or through exposure to personal computers. A brief introduction to computers and computing systems. A thorough grounding in the use of FORTRAN 77 as a tool for the solution of engineering and scientific problems. Introduction to the principles of software engineering: problem specification, requirements analysis, programme design with emphasis on structured programming, testing, and validation; programme documentation. Lectures: three hours per week. Tutorial: one hour per week.
NOTES: 1. Students having credit for a FORTRAN programming course from CEGEP with a mark of at least 85% may, during the first two weeks of the course, apply to the course coordinator to undertake a FORTRAN programming project appropriate to their field of study in lieu of the normal requirements of the course.
2. Students in the BCompSc programme may not take this course for credit.

COMP 215 ***Introduction to Computer Science*** (2 credits)
Prerequisite: MATH 203 or CEGEP Mathematics 103; MATH 204 or CEGEP Mathematics 105. Problems and problem-solving: algorithms and heuristics; a high-level language — Basic structure and layout, control structures, modules, structured data types. Lectures: two hours per week. Tutorial: one hour per week.
NOTES: 1. Students may apply for exemption from this course if they have sufficient experience in a compatible high-level language. An examination may be required to verify the level attained.
2. If exempt, the student must take equivalent credits in a Computer Science elective.
3. Students who have received credit for COMP 244 or COMP 291 may not take this course for credit.

COMP 220 ***Computer Organization and Assembly Language*** (4 credits)
Prerequisite: COMP 215; COMP 231. Basic features of the assembly language and instruction set level description of a selected contemporary computer. Principles of computer organization including the memory, CPU, and I/O subsystems. Representation of integers, ASCII characters and IEEE floating point format, instruction sequencing, addressing modes, and instruction interpretation. Semiconductor RAM, ROM, and DISK memories including address decoding. Input/output techniques-polling, DMA and I/O channel concepts. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 224 or COMP 285 may not take this course for credit.

COMP 231 ***Introduction to Discrete Structures*** (3 credits)
Prerequisite: MATH 204 or CEGEP Mathematics 105. Set theory, relations, propositional logic and proofs, algebraic structures, graphs, lattices and Boolean algebra, enumeration. Lectures: three hours per week. Tutorial: one hour per week.

COMP 245 ***Programming Methodology*** (3 credits)
Prerequisite: MATH 205 or CEGEP Mathematics 203; COMP 215; COMP 231 previously or concurrently. Expressions, functions, and recursion. Command sequences and assignments. Loops and iteration. Proof techniques for programmes. Simple and recursive data structures. Arrays. Programme development and documentation. Lecture: three hours per week. Tutorial: one hour per week.

COMP 251 ***Introduction to Business Programming*** (3 credits)
Prerequisite: CEGEP 420-911 or equivalent. Introduction to business data processing. Basic file organization and handling, record layouts, elementary information storage and retrieval. Detailed specifications of the Common Business Oriented Language (COBOL). Structured programming concepts will be emphasized. This course will include programming assignments involving basic business applications, to be prepared, tested, and documented individually. Lectures: three hours per week. Tutorial: one and a half hours per week.
NOTE: Restricted to students registered in a Commerce and Administration programme.

COMP 292 ***Language Laboratory — COBOL*** (1 credit)
Prerequisite: COMP 244 or COMP 245. Use of computer system. Syntax and semantics of the programming language COBOL. The design, development, and documentation of programmes. Projects requiring the proper choice of data structures, control structures, and tools of software design. Laboratory: two hours per week. Tutorial: one hour per week.

COMP 293 ***Language Laboratory — FORTRAN*** (1 credit)
Prerequisite: COMP 244 or COMP 245. Use of computer system. Syntax and semantics of the programming language FORTRAN. The design, development, and documentation of programmes. Projects requiring the proper choice of data structures, control structures, and tools of software design. Laboratory: two hours per week. Tutorial: one hour per week.

COMP 294 ***Language Laboratory — LISP*** (1 credit)
Prerequisite: COMP 245 or equivalent. Syntax and semantics of the programming language LISP. Projects requiring the proper choice of data structures, control structures, and tools of software design. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 391 may not take this course for credit.

COMP 295 ***Language Laboratory — PL/I*** (1 credit)
Prerequisite: COMP 245 or equivalent. Syntax and semantics of the programming language PL/I. Projects requiring the proper choice of data structures, control structures, and tools of software design. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 392 may not take this course for credit.

COMP 296 ***Language Laboratory — APL*** (1 credit)
Prerequisite: COMP 245 or equivalent. Syntax and semantics of the programming language APL. Projects requiring the proper choice of data structures, control structures, and tools of software design. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 393 may not take this course for credit.

COMP 297 ***Language Laboratory — Ada*** (1 credit)
Prerequisite: COMP 245 or equivalent. Syntax and semantics of the programming language Ada. Projects requiring the proper choice of data structures, control structures, and tools of software design. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 394 may not take this course for credit.

COMP 298 ***Language Laboratory — C*** (1 credit)
Prerequisite: COMP 245 or equivalent. Syntax and semantics of the programming language C. Projects requiring the proper choice of data structures, control structures, and tools of software design. Laboratory: two hours per week. Tutorial: one hour per week.

COMP 326 ***Computer Architecture*** (3 credits)
Prerequisite: COMP 346 previously or concurrently or COMP 343 previously. Classification schemes. Functional units, bussing systems and input/output structures, storage systems, instruction sets. Microprogramming. Survey of different kinds of computer architectures. Software influences on architecture. Advanced topics in computer architecture. Lectures: three hours per week. Tutorial: one hour per week.

COMP 327 ***Digital System Design*** (4 credits)
Prerequisite: COMP 220 or equivalent. Reduction of Boolean expressions. Digital integrated circuits. Combinatorial circuits. Sequential logic, counters, shift registers. Microprocessors. Interfacing with external devices. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 325 or COMP 386 or COEN 312 may not take this course for credit.

COMP 335 ***Introduction to Theoretical Computer Science*** (3 credits)
Prerequisite: COMP 231 or COEN 231; COMP 245 or equivalent. Finite state automata, context free grammars, push-down automata, LL(1) and LR(1) parsing, Turing machines, computability and complexity theory, formal methods of programme specification, programme testing, and programme verification. Lectures: three hours per week. Tutorial: one hour per week.

COMP 346 ***Operating Systems*** (4 credits)
Prerequisite: COMP 352; COMP 220 or COMP 224 or COEN 311. Operating system evolution and services. Process management: concepts of processes, concurrent languages, process states, process communication, operating system structure, processor scheduling, monitors. System management: virtual memory, resource allocation, queue management, communication with peripherals, exception handling. File systems. Interactive computation. Protection. Distributed systems. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COMP 343 or COMP 385 may not take this course for credit.

COMP 352 ***Data Structures and Algorithms*** (3 credits)
Prerequisite: COMP 231 or COEN 231; COMP 245 or equivalent. This course will

emphasize the definition, usage, and manipulation of fundamental data structures and their associated algorithms: stacks and queues, trees, tables, lists, arrays, strings, sets. Lectures: three hours per week. Tutorial: one hour per week.

COMP 353 ***Files and Databases*** (4 credits)
Prerequisite: COMP 352. Files and access methods: physical and logical organization, access methods, basic files, external sorting, B-trees, multi-key organizations. Classical database management: modelling, data integrity, data independence and security, ANSI/SPARC architecture, data models (relational, hierarchical, and network), database design, detailed study of the relational model. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week.

COMP 354 ***Software Engineering*** (4 credits)
Prerequisite: COMP 335; COMP 353 previously or concurrently. Scientific principles and managerial guidelines for software construction; comparative study of software life cycle models; software requirements analysis and specification methods; software design concepts, aids, and tools. Alternate approaches to software design — prototyping, executable specification, and object oriented design; software testing, verification, and validation methods; reliability of embedded systems. Lectures: three hours per week. Laboratory: two hours per week. Tutorial: one hour per week.
NOTE: Students who have received credit for COEN 431 may not take this course for credit.

COMP 361 ***Elementary Numerical Methods*** (3 credits)
Prerequisite: COMP 231; COMP 245 or equivalent. Error analysis and computer arithmetic. Numerical methods for solving linear systems, Gaussian elimination, LU decomposition. Numerical solution of non-linear equations, fixed point iterations, rate of convergence. Interpolations and approximations, Lagrange polynomials, divided differences, discrete least-square approximation, Legendre polynomials. Numerical integration, Newton-Cotes formulas, Romberg integration. Emphasis will be on the development of efficient algorithms. Lectures: three hours per week. Tutorial: one hour per week.

COMP 421 ***Microprocessor Systems Architecture*** (4 credits)
Prerequisite: COMP 327 or equivalent. Microcomputer families. Memory interface. I/O systems. Peripheral control. Single-chip microprocessors. Coprocessors. System busses. Board level design. Multicomputer systems. Communication architecture. Lectures: three hours per week. Laboratory: two hours per week.
NOTE: Students who have received credit for COMP 427 or COMP 486 may not take this course for credit.

COMP 441 ***Comparative Study of Programming Languages*** (3 credits)
Prerequisite: COMP 352; COMP 294 previously or concurrently. Run-time structures for procedural languages. Introduction to other language classes, such as functional, logic, and object oriented, and their run-time structures. Comparison of typed and untyped languages. Students will obtain practical experience by writing programmes in various languages. Lectures: three hours per week.

COMP 442 ***Compiler Design*** (3 credits)
Prerequisite: COMP 220 or COEN 311 or equivalent; COMP 335; COMP 352. Compiler organization and implementation. Programming language constructs, their syntax and semantics. Syntax directed translation, code optimization. Run-time organization of programming languages. Lectures: three hours per week.
NOTE: Students who have received credit for COMP 342 may not take this course for credit.

COMP 443 ***Logic for Computer Science*** (3 credits)
Prerequisite: COMP 335. First-order logic: first-order languages, syntax, semantics. Important logic systems: Horn clause logic, lambda calculus, type theory. Applications: logic programming, expert systems, theorem-proving, computational models, semantic models for distributed and concurrent systems. Lectures: three hours per week.

COMP 444 ***System Software Design*** (4 credits)
Prerequisite: COMP 298; COMP 346 or equivalent. Detailed examination of data structures and algorithms of a contemporary operating system: file system, processes, memory management, device management. Comparison of techniques used with those employed in other operating systems. Lectures: three hours per week. Laboratory: two hours per week.
NOTE: Students who have received credit for COMP 423 or COMP 446 or COMP 485 may not take this course for credit.

COMP 445 ***Data Communication and Computer Networks*** (3 credits)
Prerequisite: COMP 346 or equivalent. The study of remote access to and communications between computers. Network architectures and topology; communication protocols and interfaces, functional layers; transmission facilities including communications equipment, line utilization, switching, and error handling; standard protocols; network interfaces including routing and flow control; point-to-point, broadcasting, and local networks theory and current practice; high-level protocols; reliability and security, encryption. Lectures: three hours per week.
NOTE: Students who have received credit for COMP 372 or 373 may not take this course for credit.

COMP 451 ***Database Design*** (3 credits)
Prerequisite: COMP 353. Review of the relational data model and introduction to distributed databases. DBMS architectures. Data dependencies, decomposition algorithms. Data dictionaries. Concurrency, integrity, security, and reliability issues. Query decomposition, optimization, and evaluation strategies. Physical database design. Lectures: three hours per week.

COMP 457 ***Office Automation*** (3 credits)
Prerequisite: COMP 352. Design of an office automation system. Technical aspects of some office functions. Petri nets. Communication networks. Interface design. Security and cryptography. Future developments. Lectures: three hours per week.

COMP 458 ***Structure of Information Systems*** (3 credits)
Prerequisite: COMP 353. Information systems and organizations. Representation and analysis of system structure. Decision theory. Information system applications. Information centres. System evaluation and selection. Lectures: three hours per week.

COMP 463 ***Discrete System Simulation*** (3 credits)
Prerequisite: COMP 245 or equivalent; EMAT 271 or MATH 243 or DESC 244 or ENGR 371. Discrete random variables and their distributions. A comparison of simulation techniques: discrete, continuous, and hybrid. Queueing models, analysis of data. Model building. Review of simulation languages. Application to business problems and operations research. Lectures: three hours per week.
NOTE: Students who have received credit for COMP 475 may not take this course for credit.

COMP 465 ***Design and Analysis of Algorithms*** (3 credits)
Prerequisite: COMP 335; COMP 352. Empirical and theoretical measures of the efficiency of algorithms. Algorithm design techniques. A study of good algorithms related to set operations, sorting, and graph theory. A survey of hard problems, NP-completeness, and intractable problems. Lectures: three hours per week.

COMP 467 ***Introduction to Symbolic and Algebraic Computation*** (3 credits)
Prerequisite: COMP 335; COMP 352. Comparison, familiarization, and use of several symbolic systems and languages (such as MACSYMA, MU-MATH, REDUCE, SAC). Symbolic algebra, factorization, integral and differential calculus, method of homomorphism. Lectures: three hours per week.
NOTE: Students who have received credit for COMP 437 may not take this course for credit.

COMP 468 ***Formal Languages and Syntax Analysis*** (3 credits)
Prerequisite: COMP 335. Review of context-free grammars and languages. LL(k) and LR(k) parsing techniques. Earley's parsing algorithm. Attribute grammars and attribute evaluation. Lectures: three hours per week.

COMP 469 ***Performance Modelling of Computer Systems*** (3 credits)
Prerequisite: COMP 346 or equivalent; EMAT 271 or MATH 243 or DESC 244 or ENGR 371. Review of elements of probability theory and statistics. Random variable generation. Reliability of computer systems. Review of basic results in queueing theory. Analysis and simulation of computer systems. Application of queueing models to performance modelling of computer systems. Lectures: three hours per week.

COMP 471 ***Computer Graphics*** (4 credits)
Prerequisite: COMP 220 or COEN 311; COMP 352. Display memory; generation of points, vectors, etc. Interactive versus passive graphics; CRT devices and plotters, analog storage of images. Digitizing and digital storage. Pattern recognition. Data structures and graphics software. The mathematics of three-dimensional transformations; projections. Applications in computer-aided design and instruction. Lectures: three hours per week. Laboratory: two hours per week.
NOTE: This course was mistakenly listed as a 3.75-credit course in the 1995-96 Undergraduate Calendar.

COMP 472 ***Introduction to Artificial Intelligence*** (3 credits)
Prerequisite: COMP 294; COMP 353 previously or concurrently. Scope of AI. Heuristics. Problem-solving methodologies. Game-playing. Reasoning by deduction and induction. Natural language processing. Lectures: three hours per week.

COMP 473 ***Pattern Recognition*** (3 credits)
Prerequisite: COMP 352. Sequential and parallel recognition methodologies. Preprocessing. Feature extraction and selection. Syntactic and statistical approaches. Discriminant functions. Techniques for learning. Bayesian decision procedures. Neural nets. Lectures: three hours per week.

COMP 474 ***Introduction to Expert Systems*** (3 credits)
Prerequisite: COMP 352. Basic concepts and techniques. Knowledge representation in inferencing. Building a small expert system. Knowledge engineering and large system development. Survey of tools and expert systems. The expert system market. Lectures: three hours per week.

COMP 490 ***Computer Science Project I*** (3 credits)
Prerequisite: Completion of 60 credits. Students will work on a computer science project under

the supervision of a faculty member and submit a suitable written report on the work carried out. Students planning to register for this course should consult with the Department prior to registration in the final year of study.

COMP 492 ***Computer Science Project II*** (3 credits)
Prerequisite: COMP 490 previously or concurrently. Students having permission of the Department to carry out a major project will register for both COMP 490 and 492. Alternatively, they may carry out a second smaller project.

COMP 495 ***Honours Seminar*** (1 credit)
Prerequisite: Registration in final year of the Honours programme. Students are required to attend a required number of departmental seminars (initially ten) and submit a written report on one of them. There will be an administrator in charge of this course.

71.90 CERTIFICATE PROGRAMME IN QUALITY CONTROL

Students are no longer admitted to this programme; applicants interested in it are referred to a similar programme in the Centre for Continuing Education. The following course descriptions are given for the benefit of those already admitted to the programme.

71.90.1 Curriculum for the Certificate in Quality Control

To be recommended for the award of the Certificate in Quality Control, students must satisfactorily complete the programme of 48 credits specified below in accordance with the graduation requirements specified in §71.10.5. The courses offered in the programme will provide the student with an in-depth understanding and working knowledge of the principles and practices used in the rapidly expanding field of quality control.
The programme is fully endorsed by the Montréal section of the American Society for Quality Control (ASQC). It has been designed in keeping with the requirements stipulated by the Education Institute of the ASQC headquarters and, as such, does much to prepare candidates for the ASQC Quality Engineer Certificate examinations. It should be noted, however, that the Certificate programme does not lead to admission to the Order of Engineers of Québec, or to the legal use of the title engineer.

71.90.2 Academic Regulations

Students are subject to the academic regulations specified in §71.10.3.

71.90.3 Course Requirements

To be recommended for the award of the Certificate, students must satisfactorily complete the following courses:

QUAL 200 Elementary Metrology
QUAL 201 Advanced Metrology
QUAL 202 Statistical Quality Control
QUAL 203 Statistical Sampling
QUAL 204 Basic Concepts of Reliability
QUAL 205 Advanced Reliability
QUAL 206 Quality Management
QUAL 207 Design of Experiments
QUAL 208 Quality Assurance Technology
QUAL 209 Product Cost Control
QUAL 210 Computer Applications of Statistics
COMP 212 FORTRAN for Engineers and Scientists

Three elective credits from Computer Science or Decision Sciences and Management Information Systems.

Course descriptions are given below, except for electives and COMP 212, which may be found in the Computer Science, and Decision Sciences and Management Information Systems sections of the Calendar.

Courses

Please note that new course numbers have been implemented. For equivalent course numbers under the old system, please consult §200.6.

QUAL 200 ***Elementary Metrology*** (3 credits)
Prerequisite: MATH 204; MATH 205 (CEGEP Mathematics 105 and 203). An introductory course dealing with general measurement concepts, methods for estimating accuracy, systematic and constant errors. Included are: mathematical bases of metrology, statistical analysis of measurement, master standards, principles involved in the use of projectors, pneumatic comparators, and direct reading measuring machines.

QUAL 201 ***Advanced Metrology*** (3 credits)
Prerequisite: QUAL 200; QUAL 202. This course applies the principles presented in Elementary Metrology, and explores the value of these principles through everyday applications to modern technology. Special consideration is given to the Système International (Modernized Metric System) and its influence on industry (including the use of conversion tables and formulae). The course treats non-destructive testing techniques and their applications, including (in some depth) radiographic, ultrasonic and nucleonic gauging and measurement.

QUAL 202 ***Statistical Quality Control*** (3 credits)
Prerequisite: MATH 204; MATH 205 (CEGEP Mathematics 105 and 203). Techniques for establishing, monitoring, and maintaining process control of manufactured products. A workshop course with full student participation in solving a variety of practical statistical quality control problems. Discussed are the concept of variation, frequency distributions, functions of a

frequency distribution, the various types of control charts including those for attributes and variables data, analysis of patterns, process capability studies and other related topics.

QUAL 203 ***Statistical Sampling*** (6 credits)
Prerequisite: QUAL 202. Statistical sampling theory and its application to quality control. Also discussed in lecture workshop/sessions are risks for producer and consumer. Topics include elements of probability theory; the binomial; Poisson and hyper-geometric distribution; sampling theory; sampling plans, classification of sampling plans — AQL, AOQL and LTPD, types of sampling plans within each classification, such as single, double, multiple, unit sequential, and continuous plans and their associated operating characteristic curves. MIL-STD-105D and MIL-STD-414 are discussed in detail and the Dodge and Romig tables are highlighted.

QUAL 204 ***Basic Concepts of Reliability*** (3 credits)
Prerequisite: QUAL 202. A mixed format of lectures, workshops, problems, and discussions designed to familiarize the student with the basic principles of reliability. Building gradually from historical review, definitions, and concepts, the course discusses probability theory, Poisson and exponential distributions, reliability equation, MTBF and failure rate concepts, Weibull analysis, mean and median ranks, confidence statements, life characteristic curves, system reliabilities, standby systems, associated problems, and other related topics.

QUAL 205 ***Advanced Reliability*** (3 credits)
Prerequisite: QUAL 202; QUAL 204. Statistical methods in life testing. Introduction, reliability concepts and definitions, historical review and development. Life characteristic curve, Poisson and exponential distributions, exponential reliability equation, MTBF and failure rate concepts. Chi square confidence statements and intervals, Weibull analysis, mean and median ranks, associated problems. Probability theory, system reliabilities, standby systems, and other related topics.

QUAL 206 ***Quality Management*** (3 credits)
Prerequisite: MATH 204; MATH 205 (CEGEP Mathematics 105 and 203). Emphasis is on general principles of planning and management rather than quality control methodology. The concept of total quality control from design, development, and manufacture to customer use, is developed. The economics of quality, the planning and implementation of a quality cost programme, organization for quality, procurement quality control, in-process control, motivation for quality, value engineering, system quality audit, customer feedback, and product liability are topics treated in detail.

QUAL 207 ***Design of Experiments*** (6 credits)
Prerequisite: QUAL 202. An introductory course providing a more systematic approach to experimentation with emphasis on the use of statistical designs for data interpretation and known confidence in the result and overall costs. The course covers: tests of hypotheses, F, t, and X^2 tests, analysis of variance, goodness of fit tests, use of probability paper, and control chart analysis of experimental results. Also included are experimental design methods such as full and fractional factorial designs, regression analysis, multiple and random balance designs, latin square, cube and nested designs.

QUAL 208 ***Quality Assurance Technology*** (6 credits)
Prerequisite: QUAL 202. The basic principles of quality assurance, and its definition as a planned and systematic pattern of actions necessary to provide adequate confidence that a product or service conforms to established requirements. The development of the individual quality system in a modular format to cover the various phases of the industrial and commercial enterprise. Topics include: development of quality organizations, systems engineering, closed loop feedback systems, principle of modular systems, what the customer expects vs. what he or she gets, development of quality product, computer software QA, product safety and reliability, vendor-vendee relations, manufacturing, processing, and post-production servicing.

QUAL 209 ***Product Cost Control*** (3 credits)
Prerequisite: MATH 204; MATH 205 (CEGEP Mathematics 105 and 203). This course introduces the student to product cost control and related areas. Topics include introductions to accounting, procedures, cash flow, budgeting, capital equipment costing and amortization, product costing, cost of quality control systems ("quality costs"). Lectures: three hours per week.

QUAL 210 ***Computer Application of Statistics*** (3 credits)
Prerequisite: QUAL 203; COMP 212. This course is designed to familiarize the student with the application of computers to statistical problems. FORTRAN programmes are used to develop a working knowledge of standard programmes for control charts, analysis of experimental design, sampling plans, forecasting and statistical analysis common to many other fields. *NOTE A/See §200.6*

faculty of fine arts

81.10 ***PROGRAMMES AND ADMISSION REQUIREMENTS***
- **81.10.1** Applicants from Québec Institutions
- **81.10.2** Transfer Students
- **81.10.3** Mature Entry
- **81.10.4** Extended Credit Programme
- **81.10.5** Portfolio Evaluation Committee

81.20 ***DEGREE REQUIREMENTS***
- **81.20.1** BFA Degree Requirements
- **81.20.2** Residence Requirements
- **81.20.3** Course Load
- **81.20.4** Academic Performance Requirements

81.30 ***FACULTY OF FINE ARTS PROGRAMME AND COURSES***

81.40 ***INTERDISCIPLINARY STUDIES***

81.50 ***ART EDUCATION AND ART THERAPY***

81.60 ***ART HISTORY***

81.70 ***CINEMA***

81.80 ***CONTEMPORARY DANCE***

81.90 ***DESIGN ART***

81.100 ***MUSIC***

81.110 ***PAINTING AND DRAWING***

81.120 ***PRINTMAKING AND PHOTOGRAPHY***

81.130 ***SCULPTURE, CERAMICS AND FIBRES***

81.140 ***THEATRE***

section 81

81 FACULTY OF FINE ARTS

Dean
CHRISTOPHER JACKSON

Associate Deans
GENE GIBBONS, *Physical Resources and Development*
KATHRYN LIPKE, *Research*
KATHLEEN PERRY, *Communications and Advancement*
KATHERINE TWEEDIE, *Academic Programmes and Student Affairs*

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 250
(514) 848-4600

Objectives

During its fourteen years of existence, the Faculty of Fine Arts has achieved an internationally recognized standard of excellence in undergraduate education with the visual and performing arts. The Faculty situates its students within both the pluralism of the academic experience of the University and our multicultural urban environment. At the same time, Fine Arts curriculum and teaching responds to the context and demands of a changing artistic community. Programmes and courses in studio or academic disciplines within the visual and performing arts prepare students for entry into that community or for higher education in the arts.

Programmes

The Faculty of Fine Arts has two divisions, comprising 10 departments offering numerous programmes.

The PERFORMING ARTS DIVISION consists of the following Departments:

	Calendar Section
Contemporary Dance	81.80
Music	81.100
Theatre	81.140

The VISUAL ARTS DIVISION consists of the following Departments:

Art Education and Art Therapy	81.50
Art History	81.60
Cinema	81.70
Design Art	81.90
Painting and Drawing	81.110
Printmaking and Photography	81.120
Sculpture, Ceramics and Fibres	81.130

Programmes offered:
For information concerning any of the following programmes, please consult the calendar section listed opposite each programme.

Specializations:	*Calendar Section*
Art Education	81.50
Design for the Theatre: Conception and Realization	81.140
Drama in Education	81.140
Film Production	81.70
Film Studies	81.70
Jazz Studies	81.100
Music Performance Studies	81.100
Music Theory/Composition	81.100
Playwrighting (English and Theatre)	81.140
Selected Music Studies	81.100
Theatre Performance	81.140

Majors:	
Art Education	81.50
Art History	81.60
Art History and Studio Art	81.60, 81.110, 81.120, 81.130
Integrative Music Studies	81.100
Interdisciplinary Studies	81.40
Ceramics	81.130
Cinema	81.70
Contemporary Dance	81.80
Design Art	81.90
Fibres	81.130
Film Animation	81.70
Film Production	81.70
Film Studies	81.70
Painting and Drawing	81.110
Photography	81.120
Printmaking	81.120
Sculpture	81.130
Studio Art	81.110, 81.120, 81.130
Theatre	81.140
Minors:	
Art History	81.60
Art History and Studio Art	81.60, 81.110, 81.120, 81.130
Cinema; Film Animation; Film Studies	81.70
Music	81.100
Photography	81.120
Theatre	81.140
Women and the Fine Arts	81.30

81.10 PROGRAMMES AND ADMISSION REQUIREMENTS

General admission requirements are listed in §13. In addition, the following specific requirements exist for the various programmes.

81.10.1 Applicants from Québec Institutions

In addition to successful completion of a two-year pre-university CEGEP programme (or equivalent), some programmes have distinct requirements as follows:

1. There are no specific courses or procedures required for the Major and Minor in Art History.
2. Applicants to the Minor in Women and the Fine Arts must submit a *letter of intent* with their application.
3. Applicants to the Major in Interdisciplinary Studies must submit a *letter of intent* as well as attend an *interview* and present an *audition or portfolio* of their own work. Applicants must contact the Interdisciplinary Studies programme office for particulars.
4. Applicants to Specializations in Drama in Education and Theatre Performance; Majors in Contemporary Dance and Integrative Music Studies; and the Minors in Music and Theatre are required to attend an *interview and audition* as part of the admission process. These applicants must contact the relevant Department for appointments.
   Students applying for entrance to the Department of Music are accepted into the Major in Integrative Music Studies. Upon completion of 30 credits, students may apply for transfer into a Specialization programme.
5. Applicants to the Major in Photography, the Specialization in Design for the Theatre, Joint Specialization in Playwrighting (English and Theatre) must submit a *portfolio* as well as attend an *interview and audition*. Applicants must contact the relevant Department for particulars regarding portfolio submissions and auditions.
6. Applicants to the Major in Cinema, Specialization in Film Production, Specialization and Major in Film Studies are required to submit a *portfolio*. A *letter of intent* and/or an *interview* may also be required depending upon the Cinema concentration chosen. All applicants should contact the Department of Cinema in January for detailed information regarding these requirements.
7. Applicants to the Major in Theatre must attend an *interview and audition* and submit a *letter of intent*. Applicants must contact the Department of Theatre for particulars.
8. Applicants to the Majors in Art History and Studio Art; Studio Art; Painting and Drawing; the Minor in Art History and Studio Art are required to submit a *portfolio* of their own work (see §81.10.5) as well as a *letter of intent* (see §81.60.1 and §81.110.2). Applicants to the Majors in Ceramics; Fibres; Printmaking; Sculpture are required to submit a *portfolio* of their own work

(see §81.10.5). Applicants to the Major in Design Art must attend an *interview* and submit a *letter of intent* as well as a *portfolio* of their own work (see §81.90.1.). Applicants must contact the Department of Design Art for particulars.

9. Applicants to the Specialization and Major in Art Education **normally** require the *CEGEP 10.6 profile*. Applicants who do not have this profile or an equivalent academic background in fine arts are encouraged to submit a *portfolio* of their own work (see §81.10.5) to the Portfolio Evaluation Committee.

81.10.2
Transfer Students

Applicants who have completed courses in other colleges or universities may be granted credits (advanced standing) on the basis of the programmes at Concordia University. Applicants follow the same admission procedures as those from Québec institutions (see §81.10.1 above).
Applicants to a second undergraduate degree must complete a minimum of 60 credits, other than those credited towards the first degree, at least 36 of which must be taken in the new field of Specialization (§16.1.3). Students transferring credits towards a first degree must complete a minimum of 45 credits at Concordia (see §16.1.3).
Students must complete all programme and degree requirements, as well as the Faculty of Fine Arts residence requirements (see §81.20.2).

81.10.3
Mature Entry

General admission requirements to the 108-credit programme (Mature Entry) are listed in §14. Students admitted into the Faculty of Fine Arts through the Mature Entry plan are required to complete 18 credits in addition to the 90 credits normally required for the BFA degree. Fine Arts students are required to complete 18 credits appropriate for entry into the student's ultimate area of concentration and chosen with the approval of a faculty adviser.

81.10.4
Extended Credit Programme

Definition of the Extended Credit Programme is listed in §13.2. Students admitted to an Extended Credit Programme in Fine Arts are required to complete 120 credits for the degree, that is, 30 additional credits. A maximum of 18 of these 30 credits may be selected from courses offered in the Faculty of Fine Arts which are appropriate for entry into the student's area of concentration and chosen with the approval of a faculty adviser. The remaining 12 credits are selected from introductory level courses in other Faculties.

81.10.5
Portfolio Evaluation Committee

In addition to admission portfolio committees in each of the Studio Art departments, there is a Portfolio Evaluation Committee which reviews the portfolios of all applicants to the Major in Studio Art programme. In addition to recommending admission to a programme, the Portfolio Evaluation Committee may recommend the completion of either SFAR 250, 260 or 270 as part of a student's programme. All portfolio requirements are listed under *Admission* in each of the department sections. To ensure early processing of applications to the Faculty of Fine Arts Studio Art programmes, the deadline for portfolio submission is Friday, March 15, 1996 (12:00 PM/noon). It is the responsibility of the applicants to submit their portfolios before the deadline.

81.20 DEGREE REQUIREMENTS

Students preparing for the BFA degree require a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours of work spread across lectures, conferences, tutorials, studios, rehearsals or practice periods, tests, examinations, and personal work.

81.20.1
BFA Degree Requirements

1. A candidate for the BFA degree must have qualified for admission to, and successfully completed a programme of concentration in the form of a Specialization (See §16.2.3), Major (See §16.2.3) or a Double Minor* programme in the Faculty of Fine Arts. A selection is made upon entry, prior to registration. The requirement of selecting a programme upon entry should not be thought of as being necessarily a final commitment. Students wishing to transfer out of one degree programme must satisfy the admission requirements of the programme they seek to enter. Programme changes are, however, subject to limitations where certain programmes are in great demand. Students should be aware that to effect certain transfers they may be required to complete more than the 90 credits normally required for the degree.
   **A Minor consists of an approved sequence of 24-30 credits. The term "Double Minor" refers to a combination of two minors selected from the Faculty of Fine Arts; a planned programme of study in two specialized fields in Fine Arts with a lower degree of concentration in both than is afforded by a Major programme.*
2. A candidate for graduation must have successfully completed at least 18 credits selected from course offerings outside the Faculty of Fine Arts. (Courses in the Department of

Communication Studies do not fulfil this requirement of outside the Faculty of Fine Arts.) Within every block of 30 credits taken towards the degree, a student is encouraged to choose no more than 24 credits from the Faculty of Fine Arts.

3. A candidate for graduation normally may apply no more than 54 credits in studio work towards the 90 credits required for the BFA degree.
4. A candidate for graduation must fulfil all university graduation requirements (See §16.2.4).
5. The credits obtained for any course may not be used to satisfy the requirements of more than one programme.

81.20.2 Residence Requirements

Students are subject to the university residence requirement (see §16.1.3) which states that of the 90 credits required for the BFA degree, a minimum of 45 credits must be taken at Concordia University. Combining both residence requirements implies that the full-time student must enrol for a minimum of two years of study at Concordia University.

To fulfil the residence requirements for a BFA degree with a concentration in:

1. Art Education, Ceramics, Design Art, Fibres, Painting and Drawing, Printmaking, Sculpture, or Studio Art: a minimum of 30 credits in Studio Art and six credits in Art History must be completed at Concordia.
2. Art History, Art History and Studio Art, Cinema, Film Animation, Film Production, Film Studies, Photography, Contemporary Dance, or Interdisciplinary Studies: at least half of the concentration requirements must be completed at Concordia.
3. Drama in Education, Theatre, Theatre Performance, or Design for the Theatre: Conception and Realization: a minimum of 30 credits from the Department of Theatre must be completed at Concordia.
4. Integrative Music Studies, Jazz Studies, Music Performance Studies, Music Theory/Composition, or Selected Music Studies: a minimum of 30 credits required from the Department of Music must be completed at Concordia.
5. Minor programmes: at least half of the required credits must be completed at Concordia.

81.20.3 Course Load

The normal course load for students enrolled in the Faculty of Fine Arts is 30 credits per year for all full-time students, and a maximum of 18 credits per year for part-time students.

i) Full-time students may not register for more than 18 credits of their maximum 30 credits in any studio area in any given academic year. Part-time students may not register for more than 12 credits.

ii) Students may register for a maximum of six credits in which films are produced as a course requirement during any given academic year. *See §81.70 for list of courses.* Also, students are limited, during their degree programme, to 18 credits in Film Production or Film Animation courses in which films are produced as a course requirement (§81.70).

iii) Students may register for a maximum of six credits in Theatre Production in any given academic year, up to a maximum of 18 credits in all.

iv) Students may register for a maximum of six credits in Music Private Study in any given academic year, up to a maximum of 18 credits in their degree programme.

81.20.4 Academic Performance Requirements

For purposes of these regulations, "failure" includes the grades "F", "FNS", "R", and "NR". Failed students are not eligible to write supplemental examinations.

Definitions of Failed Standing

1. Failed — May Not Re-Register Without Special Permission

a) Any student who fails courses equivalent to more than the number of credits prescribed below before obtaining the number on record specified, will be Failed. In order to re-register, such a student must obtain special permission from the Faculty Associate Dean, Student Affairs.

FAILED CREDITS More Than	BEFORE OBTAINING ON RECORD
12	30
24	60
36	90

b) A Failed student who is given permission to re-register is placed on Academic Probation.

c) A student placed on Academic Probation must pass the next 30 credits on the first attempt and satisfy any other conditions specified for readmission. A student failing to meet these

requirements is in failed standing for a second time and will be dismissed from the University. In subsequent years, should the student wish to return to university studies, he or she must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.

2. Failed — May Not Re-Register

Any student who fails courses equivalent to more than the number prescribed below will be Failed and may not apply for readmission.

FAILED CREDITS More Than	APPLICABLE PROGRAMMES
30	90-Credit and Certificate Programmes
36	Mature Entry Programme
42	Extended Credit Programme

Any Probationary Student who fails to fulfil the terms of the probation will also be Failed and may not apply for readmission.

81.30 FACULTY OF FINE ARTS PROGRAMME AND COURSES

Programme Coordinator
KATHRYN LIPKE

Programme

24 Minor in Women and the Fine Arts
6 Faculty of Fine Arts 320[6]
6 WSDB 290[3], 291[3]
12 Electives in the Faculty of Fine Arts, chosen with the permission of a programme adviser

Courses

The following courses provide a format in which topics of faculty-wide interest are considered:

FFAR 220 ***Sound in Fine Arts*** (3 credits)
A studio course dealing with the basics of sound and its application in the Fine Arts. Topics may include production aspects of sound in performance art, video art, dance and the theatre arts. The problems of copyright and ownership of the artistic materials are also considered.

FFAR 320 ***Women and the Fine Arts I*** (6 credits)
An investigation of the visual and performing arts as they pertain to issues of gender. Studio practices in relation to theoretical and critical concerns are investigated. *NOTE A/See §200.3*

FFAR 398 ***Special Topics in Fine Arts*** (3 credits)
A course which provides an opportunity for the study of specialized aspects of Fine Arts. *NOTE C/See §200.3*

FFAR 399 ***Special Topics in Fine Arts*** (6 credits)
A course which provides an opportunity for the study of specialized aspects of Fine Arts. *NOTE C/See §200.3*

FFAR 420 ***Women and the Fine Arts II*** (6 credits)
Prerequisite: FFAR 320 or written permission of the coordinator. A continuation of FFAR 320.

81.40 INTERDISCIPLINARY STUDIES

Faculty

Acting Coordinator
CORINNE CORRY, *Special Lecturer*

Associate Professor
NORMA WAGNER

Chair, Advisory Committee
KATHERINE TWEEDIE, *Associate Professor*

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 219
(514) 848-4271

Programme Objectives

Interdisciplinary Studies embraces multiple and hybrid approaches to the creation, study, and teaching of art. The programme focuses on art processes and art forms that cross traditional boundaries within Fine Arts.
Recent artforms such as video, performance, computer work, installation, as well as various interactive, environmental, and conceptual experimentation within both the Visual and Performing Arts, are among the artistic activities engaged. A dialogue with the more traditional patterns of disciplinary mixing, such as musical theatre, is also encouraged.
The Interdisciplinary Studies programme offers a curricular structure with a sequential core of studio seminars. At the same time, specialized courses allow maximum potential for individual and group work, and existing Departments offer additional scope for interdisciplinary activity.
Evolving out of the former Inter-Related Arts programme, Interdisciplinary Studies is based on the active participation of faculty from Departments in both Visual and Performing Arts.

Programme

60 BFA Major in Interdisciplinary Studies*

24 IDYS 200[6], 250[6], 300[6], and a six-credit studio course in the Visual or Performing Arts

6 VDEO 350[6], or lecture/seminar elective(s) in the Visual or Performing Arts, chosen in consultation with the Interdisciplinary Studies Advisory Committee

6 Chosen from VDEO 300[6]; ARTE 430[6]; ART 417[6]

24 electives from Visual and/or Performing Arts, chosen in consultation with the Interdisciplinary Studies Advisory Committee

81.40.1 Admission to the Major in Interdisciplinary Studies*

The Interdisciplinary Studies Major has a distinct admission procedure in addition to the normal admission process of Concordia University. All applicants are required to attend an *interview* and present an *audition or portfolio* as part of the admission process. Applicants must contact the programme office between March 1–15 to arrange their appointments and for detailed information regarding audition/portfolio/interview requirements. Applicants must also submit a *letter of intent* along with a copy of their academic record directly to the programme director at the same time that they submit their completed application to the Office of the Registrar, i.e. prior to March 1. This short letter of intent should summarize the applicant's academic and artistic backgrounds and describe their particular interests and goals in Interdisciplinary Studies within Fine Arts.

Courses

Interdisciplinary Studies:

IDYS 200 ***Studio Seminar in Interdisciplinary Studies I*** (6 credits)

Prerequisite: Enrolment in the Major in Interdisciplinary Studies or written permission of the Interdisciplinary Studies programme director. A studio/seminar course providing the basis for an interwoven theory and practice in an interdisciplinary context. An art practice is developed through a critical approach to materials, issues, and artmaking. Required readings pertinent to current issues are discussed in relation to studio production. *NOTE: With permission of the appropriate Department Chair, this course may satisfy a studio or seminar elective requirement in a student's degree programme. Students are required to bear the costs of materials and processing, if applicable.*

IDYS 250 ***The Visual and Performing Arts in Canada in the Current Decade*** (6 credits)

A lecture course surveying the current practice and theory of the visual and performing arts in Canada, with a special focus on interdisciplinary

forms. The institutional, regional, and cultural traditions of the arts in Canada are discussed as contexts of contemporary developments; as well, artistic avant-gardes are related to popular cultures and the media. Invited guests and other experts in various disciplines are an essential part of the syllabus.

IDYS 300 ***Studio Seminar in Interdisciplinary Studies II*** (6 credits)
Prerequisite: Interdisciplinary Studies 200, and second-year standing* in the Major in Interdisciplinary Studies, or written permission of the Interdisciplinary Studies programme director. A practice-oriented seminar focusing on topics central to the interdisciplinary study of art in contemporary social and cultural contexts. Issues within areas such as history, gender, race, and technology are considered within the context of varying perspectives. Students' studio production is challenged within a contemporary interdisciplinary environment.
NOTE: With permission of the appropriate Department Chair, this course may satisfy a studio or seminar elective requirement in a student's degree programme. Students are required to bear the costs of materials and processing, if applicable.
**66 or fewer credits remaining in degree programme.*

IDYS 490 ***Independent Study*** (6 credits)
Prerequisite: Third-year standing* and written permission of the Interdisciplinary Studies programme director. A course of independent study in which the student explores a specific interdisciplinary project.
**33 or fewer credits remaining in degree programme.*

IDYS 491 ***Independent Study I*** (3 credits)
Prerequisite: Third-year standing* and written permission of the Interdisciplinary Studies programme director. A course of independent study in which the student explores a specific interdisciplinary project.
NOTE C/See §200.3
**33 or fewer credits remaining in degree programme.*

IDYS 492 ***Independent Study II*** (3 credits)
Prerequisite: IDYS 491 and written permission of the Interdisciplinary Studies programme director. A student who has completed IDYS 491 may register under 492.

IDYS 498 ***Special Topics in Interdisciplinary Study*** (3 credits)
Prerequisite: Written permission of the Interdisciplinary Studies programme director. An intensive study of specific aspects of interdisciplinary study.

IDYS 499 ***Special Topics in Interdisciplinary Study*** (6 credits)
Prerequisite: Written permission of the Interdisciplinary Studies programme director. An intensive study of specific aspects of interdisciplinary study.

Video:

VDEO 300 ***Video Production*** (6 credits)
Prerequisite: Second-year standing*, and written permission of the Interdisciplinary Studies programme director, or the Department of Cinema. A studio course introducing video technology as a tool for aesthetic investigation and creation. Students work individually and collaboratively to develop a proficiency in the medium and to evolve their particular thematic and formal concerns. Concepts and issues specific to video are discussed through the analysis and demonstration of video art.
NOTE: Students are required to bear the cost of materials and processing.
**66 or fewer credits remaining in degree programme.*

VDEO 350 ***Video History and Theory*** (6 credits)
A survey lecture course introducing the history and theory of art video practice since its inception in the 1960's. The course locates the roots of this art form in such divergent impulses as conceptualism, community activism, technological experimentation, and broadcast television, as well as in narrative and documentary traditions. In addition, regional Canadian video artists and cooperatives are situated within international historical trends and the development of post-modern and other theoretical perspectives. Weekly screenings.

81.50 ART EDUCATION AND ART THERAPY

Faculty

Chair, Art Education
CATHY MULLEN, *Associate Professor*

Director, Art Therapy
LELAND PETERSON, *Assistant Professor*

Professors Emeriti
STANLEY HORNER
LEAH SHERMAN

Professor
ELIZABETH J. SACCÁ

Associate Professors
JULIA BYERS
ANDREA FAIRCHILD
DAVID PARISER
ROBERT J. PARKER

Assistant Professors
LORRIE BLAIR
RICHARD LACHAPELLE
PAUL LANGDON

Location

Art Education
Sir George Williams Campus
Visual Arts Building, Room: VA 209-1
(514) 848-4646

Art Therapy
Sir George Williams Campus
Visual Arts Building, Room: VA 264
(514) 848-4683

Departmental Objectives

The purpose of Art Education is the development of the student as an artist, art teacher, and art education researcher. This process centres on understanding and empowerment through making and responding to art that reflects the socio-cultural historical context in which we live.

The Major in Art Education is designed for those students who plan to teach the visual arts in non-school or alternative teaching situations such as community centres, adult education programmes, camps, recreation programmes, and museums.

The Specialization in Art Education is designed for those students interested in a career as an art teacher at the Elementary or Secondary level in public or private schools.

Programmes

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.
The superscript indicates credit value.

***78 BFA Specialization in Art Education**

24 ARTE 200[6], 300[6], 400[6], 430[6]
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser
6 Chosen from ART 261[6], 460[6]; SCUL 465[6]; or Art History electives from Group B, C, or F
6 DRAW 200[6]
12 Chosen from FBRS 240[6], 260[6]; CERA 230[6]; SCUL 200[6]; PTNG 200[6]
6 Chosen from ARTH 370[3], 371[3], 373[3]
6 Studio Art or Art History electives
12 Drama in Education or Department of Music electives

**With written permission of the Department of Art Education and Art Therapy, students may take an extra six credits from offerings of the Faculty of Fine Arts.*
NOTE: Students who intend to apply for the Diploma in Art Education and for Québec Certification must, in addition, complete EDUC 210.

66 BFA Major in Art Education

24 ARTE 200[6], 300[6], 400[6], 430[6]
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser
12 Chosen from ART 261[6], 460[6]; SCUL 465[6]; or Art History electives from Group B, C, or F
6 DRAW 200[6]
12 Chosen from CERA 230[6]; FBRS 240[6], 260[6]; SCUL 200[6]; PTNG 200[6]
6 Art History electives

NOTE: This programme is an alternative to the BFA Specialization in Art Education and does not lead to teacher certification. Electives permit a wider choice in courses in preparation for graduate study in areas such as art therapy, museum education, recreation, leisure recreation, and arts administration. Students who intend to apply to the Specialization in Art Education and for Québec certification must, in addition, complete EDUC 210.

DIPLOMA IN ART EDUCATION

The Faculty of Fine Arts offers a one-year post-graduate programme leading to the Diploma in Art Education. This programme is integrated with the BFA Specialization in Art Education, to provide a continuous pattern of studies preparing art specialists for teaching in Elementary and Secondary schools.

A detailed description of the programme may be found in the School of Graduate Studies Calendar.

81.50.1 Admission to the Specialization and Major in Art Education

Applicants to programmes in Art Education normally require the *CEGEP 10.6 profile* (see §81.10.1). Applicants who do not have this profile or an equivalent academic background in fine arts are required to submit a *portfolio* of their own work (see §81.10.5) to the Portfolio Evaluation Committee. In addition to recommending admission to a programme, the Portfolio Evaluation Committee may recommend the completion of either SFAR 250, 260 or 270 as part of a student's programme.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works *larger than 20 x 24 inches (50 x 60 centimetres)* and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Return shipment of out-of-town portfolios is by prior arrangement only.

Portfolios are submitted to the Portfolio Evaluation Committee, Visual Arts Building, Room 237, prior to the deadline of Friday, March 15, 1996 (12:00 PM/noon).

Courses

Art Education:

ARTE 200 ***Studio Orientation to Art Education*** (6 credits)
Prerequisite: Enrolment in BFA Major or Specialization in Art Education programme or written permission of the Department of Art Education and Art Therapy. An introductory studio/seminar course in which students reflect on their own and their peers' studio practice and consider the underlying dynamics of the learning/teaching process in art. Students are introduced to basic pedagogical concepts through observation, case studies and a short teaching unit, planned and implemented with small groups of students within the University.
NOTE A/See §200.3
NOTE: Students who receive credit for this course may not take ARTE 201 for credit.

ARTE 201 ***Art in Early Childhood I*** (3 credits)
Prerequisite: Enrolment in the Specialization in Early Childhood or Major in Child Studies, or written permission of the Department of Art Education and Art Therapy. An introductory study of the art-making process in early childhood. This course is a studio workshop which investigates potential media and teaching approaches appropriate for the young child.
NOTE: Students who receive credit for this course may not take ARTE 200 for credit.

ARTE 202 ***Art in Early Childhood II*** (3 credits)
Prerequisite: ARTE 201. A continuation of ARTE 201.

ARTE 203 ***Arts in Recreation*** (3 credits)
A workshop/seminar course in which students are introduced to various art forms currently used in recreation centres. Intrinsic to the course content is a consideration of the role of the arts in recreation and leisure populations.

ARTE 300* ***An Introduction to Art Education*** (6 credits)
Prerequisite: Eighteen credits in Studio Art and second-year standing**, or written permission of the Department of Art Education and Art Therapy. A workshop/seminar course in which materials and art concepts are investigated and related to the teaching of art. Readings in the literature of art education are included.
**With permission of one of the Studio Art Chairs, this course may satisfy a Studio Art elective requirement in the student's degree programme, Major in Studio Art.*
***fewer than 66 credits remaining in degree programme.*

ARTE 301 ***Methodologies and Resources for the Teaching of Art History*** (3 credits)
Prerequisite: Six credits in Art History. This course deals with the methodologies, resources, and content for teaching Art History in Elementary and Secondary schools. The course consists of lectures, museum seminars, and field trips.

ARTE 310 ***Art Education in the Museum*** (6 credits)
Prerequisite: Six credits in Art History. An examination of the role of art education in the museum and of the function of the museum in

society. Fundamental problems in museum studies are considered in relation to the collection, preservation, exhibition, and interpretation of art objects. The museum as an educational institution is studied in lectures, seminars, readings, and field work. Topics include the educator's responsibilities in the planning and installing of exhibits, organizing docent and lecture programmes, and the preparing of audio-visual materials for the public.

ARTE 398 ***Special Topics in Art Education*** (3 credits)
Prerequisite: Written permission of the Department of Art Education and Art Therapy. A course which provides an opportunity for the study of specialized aspects of art education. Topics chosen for consideration vary from year to year. *NOTE C/See §200.3*

ARTE 400 ***Seminar and Practicum in Art Education*** (6 credits)
Prerequisite: ARTE 300, enrolment in the Specialization or Major in Art Education or written permission of the Department of Art Education and Art Therapy. A seminar/practicum course in which students interrelate theory and the teaching of art to develop professional skills. Readings and supervised practicum involve the planning and implementation of a curriculum and individual sessions within the framework of an articulated philosophy of art education. *NOTE A/See §200.3*

ARTE 430 ***Multi-Media*** (6 credits)
Prerequisite: Eighteen credits in Studio Art and second-year standing* in the Specialization or Major in Art Education, or written permission of the Department of Art Education and Art Therapy. An introduction to photography, super-8 filmmaking, video, and sound. The course deals with the practical and theoretical aspects of these media and explores their potential for the artist and art educator. *NOTE A/See §200.3 *66 or fewer credits remaining in degree programme.*

ARTE 498 ***Special Topics in Art Education*** (3 credits)
Prerequisite: Written permission of the Department of Art Education and Art Therapy. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of art education. The topics chosen for consideration vary from year to year according to the instructor's field of specialization. *NOTE C/See §200.3*

Art Therapy:

This course in Art Therapy is intended as part preparation for graduate study in this area.

ATRP 301 ***An Introduction to Art Therapy*** (3 credits)
Prerequisite: Second-year standing or equivalent and written permission from the Art Therapy Unit, PSYC 200 (or equivalent), Major in Art Education or 12 credits in Studio Art. Lectures, readings, and workshops which examine both the history and basic concepts of art therapy and their application.

The following courses are electives in the BFA Specialization in Art Education and Major in Art Education:

Studio Fine Arts:

SFAR 250 ***Visual Language as Content*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course focusing on visual language as content. Colour and its permutations, line, shape, pattern, texture, and composition are the personal vocabulary of each artist. The claiming of this language is central to an art practice; it will be established through two- and three-dimensional projects which challenge students to explore their capacity to visually articulate their complexity as beings in nature and culture.

SFAR 260 ***Integrated Drawing: Intersections*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which embraces various attitudes towards drawing. As an alternative approach, students experience the medium from the different perspectives of various disciplines. The course will explore the possibilities of non-traditional materials and strategies for producing drawings. Analogue (narrative) and notation, as well as the notion of aesthetic and non-aesthetic uses of drawing (such as mapping, charting, making diagrams, documenting) will be investigated.

SFAR 270 ***Extended Studio Practices*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which introduces the diversity of contemporary art practice and theory. Alternative venues, interactive art forms, questions of authorship, the significance of the object/artifact, and perceptions other than visual are among the subjects to be explored.

81.60 ART HISTORY

Faculty

Chair
CATHERINE MACKENZIE, *Associate Professor*

Professors
DONALD ANDRUS
EDWY COOKE
SANDRA PAIKOWSKY
WARREN SANDERSON

Associate Professors
JEAN BELISLE
BRIAN FOSS
HARDY GEORGE
REESA GREENBERG
JANICE HELLAND
ELLEN JAMES

Assistant Professor
JOAN ACLAND

Adjunct Professor
LOREN LERNER

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 432
(514) 848-4700

Department Objectives

Art History is important for both the student scholar and the student artist. An understanding of creative and visual responses to the world throughout the history of humankind gives students valuable perspectives on both their own work and on contemporary visual culture.

Art History is more than art appreciation. It is a lively, at times even controversial, discipline which invites investigation of the roles which intellectual, cultural, political, social, and economic factors play in defining the work of art and its subsequent reception. For this reason, students are encouraged to explore such disciplines as history, literature, philosophy, religion, women's studies and the social sciences, and are strongly advised to study languages appropriate to their interests. A programme carefully structured by the student and an adviser may open up for the art history graduate a future in a variety of fields – museums, galleries and libraries, conservation, education, journalism, and research.

The Department of Art History offers Major and Minor programmes, providing students with a solid, but individualized foundation in the critical issues involved in a full understanding of the work of art. Also available are the Major and Minor programmes in Art History and Studio Art which balance studio work with historical/theoretical studies.

Programmes

Students are responsible for satisfying their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.
The superscript indicates credit value.

66 BFA Major in Art History
6 ARTH 284[6] to be taken as first six credits in studies in Art History
6 Chosen from Group A
3 Group B: ARTH 360[3], 361[3], 362[3]
3 Group B: ARTH 363[3], 364[3], 365[3]
3 Group B: ARTH 366[3], 367[3], 368[3]
3 Group B: Art History electives
6 Chosen from Group C
6 Chosen from Group D
3 Chosen from Group E or Group F
*27 Chosen from at least three Groups in Art History, in consultation with an assigned adviser

**Students may substitute credits from the Faculty of Fine Arts for up to 12 credits in Art History.*

60 BFA Major in Art History and Studio Art
6 ARTH 284[6] to be taken as first six credits in studies in Art History
6 Chosen from ARTH 433[6], 434[6] or Studio Art elective
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser
24 Art History electives*
18 Studio Art electives chosen from studio courses offered by the Departments of: Design Art; Painting and Drawing; Printmaking and Photography; Sculpture, Ceramics and Fibres

**ART 460 may be substituted for six credits in Art History.*

30 Minor in Art History
6 ARTH 284[6] to be taken as first six credits in studies in Art History.
24 Art History electives chosen from at least three of the Groups in Art History, in consultation with an assigned adviser

30 Minor in Art History and Studio Art

6 ARTH 284[6] to be taken as first six credits in studies in Art History
6 SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser
6-12 Art History electives
6-12 Studio Art electives

81.60.1 Admission to the Major and Minor in Art History and Studio Art

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major or Minor in Art History and Studio Art.
All applicants must submit a *portfolio* of their own work, as well as a *letter of intent* as part of the admission process. In addition to recommending admission to a programme, the Portfolio Evaluation Committee may recommend the completion of either SFAR 250, 260 or 270 as part of a student's programme.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5 Works *larger than 20 x 24 inches (50 x 60 centimetres)* and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Return shipment of out-of-town portfolios is by prior arrangement only.

Portfolios are submitted to the Portfolio Evaluation Committee, Visual Arts Building, Room 237, prior to the deadline of Friday, March 15, 1996 (12:00 PM/noon).

GROUPS:

A – Media Based Studies

ARTH 261 Studies in Architecture (3 credits)
ARTH 262 Studies in Drawing (3 credits)
ARTH 263 Studies in the Print (3 credits)
ARTH 264 History of Ceramics (3 credits)
ARTH 265 History of Sculpture (3 credits)
ARTH 266 History of Textile Art (3 credits)
ARTH 349 Aspects of the History of the Print (3 credits)
ARTH 350 Aspects of the History of Ceramics (3 credits)
ARTH 351 Aspects of the History of Sculpture (3 credits)
ARTH 352 Aspects of the History of Textile Art (3 credits)
ARTH 353 Technology and Contemporary Art (3 credits)
ARTH 354 Gesamtkunstwerk (3 credits)
ARTH 433 Materials and Methods in Three-Dimensional Art (6 credits)
ARTH 434 Materials and Methods in Drawing and Painting (6 credits)

B – Period Studies

ARTH 270 Icons of Architectural History (3 credits)
ARTH 360 Aspects of Ancient Greek Art and Architecture (3 credits)
ARTH 361 Aspects of Ancient Roman Art and Architecture (3 credits)
ARTH 362 Aspects of Early Christian and Byzantine Art and Architecture (3 credits)
ARTH 363 Aspects of Medieval Art and Architecture (3 credits)
ARTH 364 Aspects of Fifteenth- and Sixteenth-Century European Art and Architecture (3 credits)
ARTH 365 Aspects of Seventeenth- and Eighteenth-Century Western Art and Architecture (3 credits)
ARTH 366 Aspects of Nineteenth-Century Western Art and Architecture (3 credits)
ARTH 367 Aspects of Twentieth-Century Art and Architecture (3 credits)
ARTH 368 Aspects of Contemporary Art and Architecture (3 credits)
ARTH 498 Special Topics in the History of Art and Architecture (3 credits)

C – Art in Canada

ARTH 370 Aspects of Canadian Art (3 credits)
ARTH 371 Aspects of Canadian Architecture (3 credits)
ARTH 372 Issues in Contemporary Canadian Architecture (3 credits)
ARTH 373 Issues in Contemporary Canadian Art (3 credits)
ARTH 374 Architecture and Urbanism in Montréal (3 credits)
ARTH 375 Issues in the Montréal Art Milieu (3 credits)
ARTH 376 Topics in Amerindian and Inuit Art (3 credits)

D – Methodology	**ARTH 283**	The Life and Work of ... (3 credits)	**ARTH 379**	Post-Colonial Theory in Art History (3 credits)
	ARTH 284	Methods of Art History (6 credits)	**ARTH 380**	Historiography and Art History (3 credits)
	ARTH 290	Art History and Archaeology (3 credits)	**ARTH 381**	Feminism and Art History (3 credits)
	ARTH 298	Special Topics in Genre Studies (3 credits)	**ARTH 388**	Narration and Art (3 credits)
			ARTH 400	Advanced Seminar in Art Historical Method (3 credits)
E – Theory and Criticism	**ARTH 383**	Art and Philosophy (3 credits)	**ARTH 386**	The Art Object and the Viewer (3 credits)
	ARTH 384	Theories of Representation (3 credits)	**ARTH 387**	Seminar in Art and Criticism (3 credits)
	ARTH 385	Colour: Theory and Application in the Visual Arts (3 credits)	**ARTH 389**	Issues in Ethnocultural Art Histories (3 credits)
F – Art and Society	**ARTH 390**	Art Institutions (3 credits)	**ARTH 393**	Art and Replication (3 credits)
	ARTH 391	Art and its Changing Contexts (3 credits)	**ARTH 398**	Special Topics in Art and Society (3 credits)
	ARTH 392	Gender Issues in Art and Art History (3 credits)		
G – Tutored Studies	**ARTH 394**	Intensive Study in Art History I (1.5 credits)	**ARTH 401**	Independent Studies in Art History (3 credits)
	ARTH 395	Intensive Study in Art History II (1.5 credits)		

Courses

ARTH 261 ***Studies in Architecture*** (3 credits)
The role and implications of selected materials and technology in architecture.

ARTH 262 ***Studies in Drawing*** (3 credits)
Drawing as an art form and its relation to other arts. *NOTE A/See §200.3*

ARTH 263 ***Studies in the Print*** (3 credits)
A selective examination of the development and uses of the print as an art form or a medium in Western and non-Western cultures.
NOTE A/See §200.3

ARTH 264 ***History of Ceramics*** (3 credits)
A selective examination of the development and uses of ceramics as an art form or a medium in Western and non-Western traditions.
NOTE A/See §200.3

ARTH 265 ***History of Sculpture*** (3 credits)
A selective examination of the development and uses of sculpture as an art form or a medium in Western traditions.

ARTH 266 ***History of Textile Art*** (3 credits)
A selective examination of the development of textile art in the Western and non-Western traditions. *NOTE A/See §200.3*

ARTH 270 ***Icons of Architectural History*** (3 credits)
A study of key buildings of civilization in relation to the specific vocabulary of architecture, its techniques and conditions of construction. Consideration is given as to how and why these buildings have become icons in particular societies.

ARTH 283 ***The Life and Work of ...*** (3 credits)
A critical examination of the relationship of accounts of an artist's life to an interpretation of her or his work.

ARTH 284 ***Methods of Art History*** (6 credits)
An introduction to methods used in art history to analyse and interpret works of art.

ARTH 290 ***Art History and Archaeology*** (3 credits)
An examination of the interrelationship between art history and archaeology as manifested in systems of classification, interpretation, periodization, stratification, as well as the valorization of series and fragments.
NOTE A/See §200.3

ARTH 298 ***Special Topics in Genre Studies*** (3 credits)
Topics pertaining to categories of subject matter such as landscape, portraiture, and still life.
NOTE C/See §200.3

ARTH 349 ***Aspects of the History of the Print*** (3 credits)
An examination of selected subjects in the history of the print.

ARTH 350 ***Aspects of the History of Ceramics*** (3 credits)
An examination of selected subjects in the history of ceramics. *NOTE A/See §200.3*

ARTH 351 ***Aspects of the History of Sculpture*** (3 credits)
An examination of selected subjects in the history of sculpture.

ARTH 352 ***Aspects of the History of Textile Art*** (3 credits)
An examination of selected subjects in the history of textile art. *NOTE A/See §200.3*

ARTH 353 ***Technology and Contemporary Art*** (3 credits)
A selective examination of the dynamics of the relationship between technology and contemporary art.

ARTH 354 ***Gesamtkunstwerk*** (3 credits)
A selective examination of art which utilizes a number of media. The relationship to work in a single medium and historical concepts of multi-media are examined.

ARTH 360 ***Aspects of Ancient Greek Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of Ancient Greek art. *NOTE A/See §200.3*

ARTH 361 ***Aspects of Ancient Roman Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of Ancient Roman art. *NOTE A/See §200.3*

ARTH 362 ***Aspects of Early Christian and Byzantine Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of Early Christian and Byzantine art. *NOTE A/See §200.3*

ARTH 363 ***Aspects of Medieval Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of Medieval art. *NOTE A/See §200.3*

ARTH 364 ***Aspects of Fifteenth- and Sixteenth-Century European Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of fifteenth- and sixteenth-century European art. *NOTE A/See §200.3*

ARTH 365 ***Aspects of Seventeenth- and Eighteenth-Century Western Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of seventeenth- and eighteenth-century Western art. *NOTE A/See §200.3*

ARTH 366 ***Aspects of Nineteenth-Century Western Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of nineteenth-century Western art. *NOTE A/See §200.3*

ARTH 367 ***Aspects of Twentieth-Century Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of twentieth-century art. *NOTE A/See §200.3*

ARTH 368 ***Aspects of Contemporary Art and Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of contemporary art. *NOTE A/See §200.3*

ARTH 370 ***Aspects of Canadian Art*** (3 credits)
Selected subjects examined in relation to predominant characteristics of art in Canada. *NOTE A/See §200.3*

ARTH 371 ***Aspects of Canadian Architecture*** (3 credits)
Selected subjects examined in relation to predominant characteristics of architecture in Canada. *NOTE A/See §200.3*

ARTH 372 ***Issues in Contemporary Canadian Architecture*** (3 credits)
A consideration of specific questions relevant to the current status and practice of architecture in Canada.

ARTH 373 ***Issues in Contemporary Canadian Art*** (3 credits)
A consideration of specific questions pertinent to contemporary art in Canada. *NOTE A/See §200.3*

ARTH 374 ***Architecture and Urbanism in Montréal*** (3 credits)
The relationship of architecture to issues of urbanism, analysed through examples from Montréal's past and/or present.

ARTH 375 ***Issues in the Montréal Art Milieu*** (3 credits)
An analysis of specific artistic phenomena or events in Montréal.

ARTH 376 ***Topics in Amerindian and Inuit Art*** (3 credits)
A detailed examination of aspects of the art of the indigenous peoples of Canada.

ARTH 379 ***Post-Colonial Theory in Art History*** (3 credits)
A critical examination of the impact of colonialism upon art and art history, and of the key concepts of post-colonial art and theory. *NOTE: It is strongly recommended that students take at least six credits in Art History courses before enrolling in this course.*

ARTH 380 ***Historiography and Art History*** (3 credits)
The history of art history as a discipline and the concepts of history it uses.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 381 ***Feminism and Art History*** (3 credits)
A consideration of the effects of feminism on art history since the late 1960's.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 383 ***Art and Philosophy*** (3 credits)
A consideration of the impact of Western philosophy on art theory and practice.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 384 ***Theories of Representation*** (3 credits)
An examination of the different concepts of representation involved in the process of creating an art object, taking into account the relationships among image, referent, artist and audience.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 385 ***Colour: Theory and Application in the Visual Arts*** (3 credits)
An examination of various theories of colour as posited by artists, philosophers, psychologists, and scientists. The relationship of such theories to the visual arts constitute an essential concern of the course.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 386 ***The Art Object and the Viewer*** (3 credits)
A consideration of such questions as how a work of art addresses the viewer, what types of viewer (generic or individual) it postulates, and what theories of perception (spatial, kinaesthetic, or psychological) are involved in explaining the process of experiencing an art object.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 387 ***Seminar in Art and Criticism*** (3 credits)
Prerequisite: Twelve credits in Art History, or written permission of the Department of Art History. An examination of selected aspects of the relationship between art and criticism.
NOTE A/See §200.3

ARTH 388 ***Narration and Art*** (3 credits)
A critical examination of given aspects of the relationship between an image and its external references. *NOTE A/See §200.3*
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 389 ***Issues in Ethnocultural Art Histories*** (3 credits)
Analyses of the conceptualization of ethnic and cultural identity in art and art history.

ARTH 390 ***Art Institutions*** (3 credits)
A study of selected institutions of art from a historical perspective. Consideration is given to the interrelationship of the institution and the milieu in which art is defined, made, exhibited, or purchased.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 391 ***Art and its Changing Contexts*** (3 credits)
An investigation of the factors which define the initial context of a work of art and of those which modify or eclipse an original context.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 392 ***Gender Issues in Art and Art History*** (3 credits)
An examination of gender as a factor in making and interpreting art.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 393 ***Art and Replication*** (3 credits)
An examination of various methods of replicating art (drawing, painting, printing, casting, photographing) and their relation to the original. Special consideration is given to the effects of the "copy" on art education, aesthetics, technique, patronage, and the market.
NOTE: It is strongly recommended that students follow at least six credits in Art History courses before enrolling in this course.

ARTH 394 ***Intensive Study in Art History I*** (1.5 credits)
Prerequisite: Written permission of the Department of Art History. An intensive course of study designed to take advantage of the presence of a visiting scholar or the occurrence of a special event.

ARTH 395 ***Intensive Study in Art History II*** (1.5 credits)
Prerequisite: Written permission of the Department of Art History. An intensive course of study designed to take advantage of the presence of a visiting scholar or the occurrence of a special event. *NOTE C/See §200.3*

ARTH 398 ***Special Topics in Art and Society*** (3 credits)
Prerequisite: Twelve credits in Art History, or

written permission of the Department of Art History. A course designed to permit a detailed examination of some aspects of art in society. *NOTE C/See §200.3*

ARTH 400 ***Advanced Seminar in Art Historical Method*** (3 credits)
Prerequisite: Third-year* standing in the Major in Art History. A seminar designed to permit an in-depth examination of some aspects of methodology relevant to art history.
NOTE A/See §200.3
**fewer than 33 credits remaining in degree programme.*

ARTH 401 ***Independent Studies in Art History*** (3 credits)
Prerequisite: Third-year* standing in the Major in Art History, and written permission of the Department of Art History. Students are required to prepare a research paper under the supervision of a faculty member. *NOTE A/See §200.3*
**fewer than 33 credits remaining in degree programme.*

ARTH 433 ***Materials and Methods in Three-Dimensional Art*** (6 credits)
Through a series of lectures, practical demonstrations, and special projects in three-dimensional art, this course familiarizes the student with selected historical and contemporary principles, processes, and materials of concern to the artist.
NOTE A/See §200.3
NOTE: Credits for this course may not be applied towards fulfilling art history requirements in the programmes in Art Education, Ceramics, Design Art, Fibres, Painting and Drawing, Photography, Printmaking, Sculpture, Studio Art. NOTE: Students who have received credit for ARTH 268 may not take this course for credit.

ARTH 434 ***Materials and Methods in Drawing and Painting*** (6 credits)
Prerequisite: Enrolment in the Major/Minor in Art History or the Major in Art History and Studio Art, or written permission of the Department of Art History. Through a series of lectures, practical demonstrations, and special projects in the media of drawing and painting, this course familiarizes the student with some of the historical materials, techniques, and other aspects of the artist's concern.
NOTE: Credits for this course may not be applied towards fulfilling art history requirements in the programmes in Art Education, Ceramics, Design Art, Fibres, Painting and Drawing, Photography, Printmaking, Sculpture, Studio Art. NOTE: Students who have received credit for ARTH 267 or ARTH 234 or ART 420 may not take this course for credit.

ARTH 498 ***Special Topics in the History of Art and Architecture*** (3 credits)
Prerequisite: Eighteen credits in Art History, or written permission of the Department of Art History. A course for advanced students which provides for the study of more specialized areas of art. *NOTE A/See §200.3*

The following courses are electives in the BFA Major in Art History and Studio Art and Minor in Art History and Studio Art:

Studio Fine Arts:

SFAR 250 ***Visual Language as Content*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course focusing on visual language as content. Colour and its permutations, line, shape, pattern, texture, and composition are the personal vocabulary of each artist. The claiming of this language is central to an art practice; it will be established through two- and three-dimensional projects which challenge students to explore their capacity to visually articulate their complexity as beings in nature and culture.

SFAR 260 ***Integrated Drawing: Intersections*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which embraces various attitudes towards drawing. As an alternative approach, students experience the medium from the different perspectives of various disciplines. The course will explore the possibilities of non-traditional materials and strategies for producing drawings. Analogue (narrative) and notation, as well as the notion of aesthetic and non-aesthetic uses of drawing (such as mapping, charting, making diagrams, documenting) will be investigated.

SFAR 270 ***Extended Studio Practices*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which introduces the diversity of contemporary art practice and theory. Alternative venues, interactive art forms, questions of authorship, the significance of the object/artifact, and perceptions other than visual are among the subjects to be explored.

81.70 CINEMA

Faculty

Chair
PETER RIST, *Associate Professor*

Professors
ANDRÉ HERMAN
JOHN LOCKE
THOMAS WAUGH

Associate Professors
STEFAN ANASTASIU
MARIO FALSETTO
CHRISTOPHER HINTON
MARJORIE MORTON
MARIELLE NITOSLAWSKA
CATHERINE RUSSELL
CAROLE ZUCKER

Assistant Professors
LOUISE LAMARRE
MARIE-LOUISE MALLET

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 259
(514) 848-4666

Department Objectives

Education in Cinema is the mission of the Department. This implies an ongoing effort to maintain the highest standards for the curriculum, faculty, staff, facilities, and services on the undergraduate and the developing graduate levels. It also implies that there must be an effort to create an optimal learning environment for students who not only attend lectures but also make films and study completed films as central components of their education at Concordia. Recognizing the complexity of the assignments given to students, faculty and staff expertise and accessibility become crucial. Conjointly, the continuing faculty research, which both enriches the education of the students and contributes to the field of cinema, has to be given a place of importance. Successfully balancing the desire to provide individual and small group instruction to a large number of highly motivated students with the need to provide the time required for faculty research is a priority for the Department. All aspects of the Department's mission are to be carried out with respect for humanistic values, justice, and human rights.

Programmes

Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20.
The superscript indicates credit value.

66 BFA Specialization in Film Production
NOTE: It is strongly recommended that students in the Specialization in Film Production have, or acquire, a knowledge of French.

*24 FMST 211[6], 212[6]; FMPR 231[6], 339[3], 450[3]
9 Chosen from FMPR 334[3], 335[3], 341[3], 343[3], 350[3], 398[3], 435[3], 438[3], 439[3], 440[3], 441[3], 442[3], 498[3]
6 Cinema electives** **** (excluding FMST 200), or credits outside of Cinema selected in consultation with the head of Film Production
27 FMPR 332[6], 337[6], and 432[6] or 433[6]; Film Studies elective(s)[9]*** (excluding FMST 200)
or
FMPR 331[6], 344[3], 345[3], 431[6]; FMST 318[3]; Film Studies elective(s)[6]** (excluding FMST 200)

66 BFA Specialization in Film Studies
NOTE: It is strongly recommended that students in the Specialization in Film Studies have, or acquire, a knowledge of French.

*24 FMST 211[6], 212[6], 321[6], 322[6]
6 Chosen from FMST 214[3], 215[3], 418[3], 419[3]***
6 FMPR 231[6] or Cinema electives**** approved by the head of Film Studies
3 FMST 450[3]
21 Film Studies electives** (excluding FMST 200); FMPR 334[3], 341[3], 441[3]
6 Film Studies seminar credits chosen in consultation with an adviser

48 BFA Major in Cinema
Option A — Film Production
*18 FMST 211[6], 212[6]; FMPR 231[6]
12 Cinema electives** ****
18 FMPR 331[6], 344[3], 345[3]; FMST 318[3]; Film Studies elective[3]
or
FMPR 332[6], 337[6]; Film Studies elective(s)[6] (excluding FMST 200)

Option B — Film Animation
*12 FMST 211[6], 212[6], or six credits in Art History
24 FMAN 202[6], 214[3], 302[6], 402[6]; FMST 323[3]

6 Cinema or Studio Art electives****
6 Cinema electives

Option C — Film Studies
*24 FMST 211[6], 212[6], 321[6], 322[6]
18 Film Studies electives** (excluding FMST 200)
6 Cinema electives****

30 Minor in Cinema
12 FMST 211[6], 212[6]
18 Film Studies electives** (With the written permission of the Department of Cinema, introductory-level Film Animation or Film Production courses, selected in consultation with the Department, may be substituted.)

This is a very limited enrolment programme for students who want to have some access to Film Production and Film Animation courses.
This Minor cannot be combined with the Minor in Film Animation or the Minor in Film Studies to form a Double Minor programme.

30 Minor in Film Animation
12 FMAN 202[6], 302[6]
3 FMST 323[3]
6 FMST 212[6]
9 Cinema or Studio Art electives chosen in consultation with the coordinator of Film Animation

This Minor cannot be combined with the Minor in Cinema or the Minor in Film Studies to form a Double Minor programme.

24 Minor in Film Studies
12 Chosen from FMST 200[6], 211[6], 212[6]
12 Film Studies electives**

This Minor cannot be combined with a second Faculty of Fine Arts Minor to form a BFA Double Minor programme. It is primarily intended for students outside the Faculty of Fine Arts. Students in Communication Studies Department degree programmes must have written permission of their Department to enter this programme.

NOTES:
**FMST 211 and 212 should be taken as part of the first 30 credits.*
***In the Specialization in Film Production, the Specialization in Film Studies, and the Major in Cinema, up to 12 credits chosen from the following courses in the Faculty of Arts and Science may be substituted for Film Studies electives and must be applied as Film Studies or Cinema electives for degree purposes: Communication Studies listed in §81.70.3; Français 373, 374. In the Minor in Cinema and the Minor in Film Studies, up to six credits chosen from the following courses in the Faculty of Arts and Science may be substituted for Film Studies elective(s) and must be applied as Film Studies elective(s) for degree purposes: Communication Studies listed in §81.70.3; Français 373, 374.*
****Communication Studies 316 may be substituted for three credits in Film Studies and must be considered as Film Studies credits for degree purposes.*
*****In the Specialization in Film Production, the Specialization in Film Studies, and the Major in Cinema, the following courses may be applied as Cinema electives for degree purposes: VDEO 300, VDEO 350.*

81.70.1 Admission to Cinema Programmes

The Department of Cinema has distinct admission procedures in addition to the normal admission process of Concordia University. While all applicants are required to submit a *portfolio*, a *letter of intent* and/or *interview* may also be required depending upon the Cinema concentration chosen. In order to allow themselves sufficient preparatory time, applicants are strongly encouraged to contact the Department of Cinema in January for detailed information regarding these requirements as well as for submission deadline dates.
NOTE: The Major in Cinema, Option A, Film Production Programme and the Specialization in Film Production are offered at the second- and third-year levels, respectively. Successful applicants to Film Production concentrations are accepted to the Major in Cinema with no option specified for their first year of study. Upon attainment of second-year standing (66 or fewer credits remaining to be completed in the programme), students may apply for transfer to the Major in Cinema, Option A, Film Production. Upon attainment of third-year standing (33 or fewer credits remaining to be completed in the programme), students in the Film Production option of the Cinema Major may apply for transfer to the Specialization in Film Production.

Courses

Film Studies:

FMST 200 ***Introduction to Film Studies***
(6 credits)
A survey acquainting the student with the art of the film. The technical and critical terminology of film studies is discussed. Popular literature on film, such as reviews, is analysed and the more specialized film literature is introduced. Directors whose films are usually viewed include Bergman, Eisenstein, Fellini, Ford, Hitchcock, Kurosawa, Lubitsch, Keaton, and Welles. Weekly screenings. *NOTE A/See §200.3*

FMST 211* ***History of Film to 1959***
(6 credits)
The evolution of the forms and themes of world cinema from its origin to 1959, in relation to its cultural, social, and political contexts. Special emphasis is placed on film historical methodology, focusing on approaches based on genre, auteur, national cinemas, social history, particular cinematic modes, or other frameworks. Weekly screenings. *NOTE A/See §200.3*
**Students in Cinema programmes who require FMST 211 should complete the course as part of their first 30 credits.*

FMST 211* ***L'histoire du cinéma jusqu'à 1959*** (6 crédits)
Ce cours couvre l'évolution des formes et des thématiques cinématographiques depuis leur début jusqu'à 1959 et les place dans leur contexte culturel, social et politique. L'accent est mis principalement sur la méthodologie de l'histoire du cinéma tout en privilégiant plusieurs angles d'approche: genre, cinéma d'auteur, cinéma national, histoire sociale, forme cinématographique particulière ou d'autres grilles. Visionnements hebdomadaires.
NOTE A/Voir §200.3
**Si ce cours figure au programme d'une personne inscrite en Cinéma, il devrait faire partie des 30 premiers crédits.*

FMST 212* ***Film Aesthetics*** (6 credits)
A study of the aesthetics of film. Topics include film criticism, theories about the fundamental elements of film, and comparisons between films which do not depend on their date of production. Problems of film description, interpretation, and evaluation are discussed. Weekly screenings. *NOTE A/See §200.3*
**Students in Cinema programmes who require FMST 212 should complete the course as part of their first 30 credits.*

FMST 214 ***English-Canadian Film*** (3 credits)
A survey of English-Canadian film from the earliest surviving works to the present. Topics include fictional, documentary, animated, and experimental film, and the role of the National Film Board is discussed. Weekly screenings.
NOTE A/See §200.3

FMST 215 ***Le cinéma québécois*** (3 crédits)
Revue des films québécois, mettant principalement l'accent sur les œuvres contemporaines. Les aspects culturels et politiques particuliers de ces films sont examinés. La structure de l'industrie cinématographique du Québec et le rôle de l'Office national du film y sont traités particulièrement. Visionnements hebdomadaires. *NOTE A/Voir §200.3*

FMST 217 ***First Nations and Film*** (3 credits)
A survey of representation by and of aboriginal peoples in film and video. The emphasis is on the Americas, but important works from other continents are included. Films and videotapes, both mainstream and experimental, are discussed in the context of contemporary aesthetic issues, socio-cultural history, and post-colonial theory. Weekly screenings.
NOTE: Students who have received credit for FMST 398H may not take this course for credit.

FMST 311 ***Montage Aesthetic*** (3 credits)
Prerequisite: FMST 212. An intensive study of montage as an element of film style. Beginning with the work of D.W. Griffith, developments in film editing are followed through French Avant-Garde and Russian films of the 1920's to contemporary film. Weekly screenings.

FMST 312 ***Moving Camera Aesthetic*** (3 credits)
Prerequisite: FMST 212. An intensive study of camera movement as an element of film style. Consideration is given to relations between long takes, deep-focus cinematography, and camera movement, as well as to the role of camera movement in creating the signification of film. Films by Murnau, Renoir, Welles, Ophuls, and Snow are included among those viewed and discussed. Weekly screenings.

FMST 313 ***Film Comedy I*** (3 credits)
Prerequisite: Second-year standing.* An introduction to film comedy in the silent and sound eras. The visual and verbal sources of comedy are analysed through the study of films ranging from Mack Sennett and Buster Keaton to Woody Allen and Jacques Tati. Weekly screenings.
**66 or fewer credits remaining in degree programme.*

FMST 318 ***Experimental Film*** (3 credits)
Prerequisite: Second-year standing.* An examination of experimental film emphasizing developments from the late forties to the present. The New American Cinema is considered in relation to other North American and European experimental cinemas, and examples of the historical antecedents of recent experimental films are viewed and discussed. Weekly screenings.
**66 or fewer credits remaining in degree programme.*

FMST 321 ***Studies in Film Directors*** (6 credits)
Prerequisite: FMST 211 or second-year standing*. A concentrated study of the work of several major directors, principally narrative, from different periods in film history. Each director's work is examined in detail with representative films from distinct periods. The films are considered in terms of thematic and stylistic consistency and variation as well as biographical, social, and political factors. Weekly screenings. *NOTE A/See §200.3*
**66 or fewer credits remaining in degree programme.*

FMST 322 ***History of Film since 1959*** (6 credits)
Prerequisite: FMST 211 or second-year standing*. A cross-cultural historical examination of selected aspects of world cinema since 1959, including trends in documentary and experimen-tal film. The principal focus on European and American cinema is contextualized through reference to Canadian, Japanese, and Third World film. A range of perspectives is introduced, including genre and auteur study, formal analysis, and feminist analysis. Films are studied in their

political and cultural contexts. Weekly screenings. *NOTE A/See §200.3*
**66 or fewer credits remaining in degree programme.*

FMST 323 ***History of Animated Film*** (3 credits)
Prerequisite: Enrolment in the Major in Cinema, Option B, Film Animation or the Minor in Film Animation, or second-year standing*. A survey of animated film from the first decade of the twentieth century to the present. Styles of animation ranging from abstract experimental film of the 1920's, to the Disney Studio, to computer animation are viewed and discussed. The contribution of the National Film Board of Canada and particularly that of Norman McLaren is considered. Weekly screenings. *NOTE A/See §200.3*
**66 or fewer credits remaining in degree programme.*

FMST 323 ***Histoire du cinéma d'animation*** (3 crédits)
Préalable: Inscription à la majeure, option B Cinéma d'animation, la mineure en cinéma d'animation, ou niveau de scolarité de la deuxième année*. Aperçu général du film d'animation depuis la première décennie du vingtième siècle, jusqu'à nos jours. Les styles d'animation, du film expérimental abstrait des années 20 au Studio Disney, et à l'animation par ordinateur, sont présentés et étudiés. Est traité aussi l'apport de l'Office national du film, en particulier celui de Norman McLaren. Visionnements hebdomadaires. *NOTE A/Voir §200.3*
**66 crédits ou moins à obtenir dans un programme conduisant à un diplôme.*

FMST 324 ***Film Script Analysis*** (3 credits)
Prerequisite: Second-year standing* and six credits in Film Studies. A study of the film script both as a basis for the construction of a film and as an identifiable component of film with its own history and value. Examples from film history as well as the work of major scriptwriters are analysed in their written form and through film screenings. The stages of script development from story idea through shooting script are discussed.
**66 or fewer credits remaining in degree programme.*

FMST 324 ***Analyse de scénarios*** (3 crédits)
Préalable: Niveau de scolarité de la deuxième année* et six crédits en études cinématographiques. Étude de scénarios sur deux plans: d'une part canevas du film et d'autre part élément identifiable ayant une histoire et une valeur propre. Analyse d'exemples tirés de l'histoire du cinéma et de l'oeuvre des plus grands scénaristes, à l'aide des textes eux-mêmes et de visionnements. Les diverses étapes de rédaction du scénario depuis l'idée de départ jusqu'au découpage sont étudiées.
**66 crédits ou moins à obtenir dans un programme conduisant à un diplôme.*

FMST 325 ***Film Acting*** (3 credits)
Prerequisite: Second-year standing.* A study of film acting centred on examining performances and individual scenes from films. Among the issues studied are the creation of star personas, casting against type, the influence of the script in the performance, the use of improvisation, the gesture system in silent film acting, ensemble acting, stylization, and exaggeration. Weekly screenings. *NOTE A/See §200.3*
**66 or fewer credits remaining in degree programme.*

FMST 327 ***Third World Film*** (3 credits)
Prerequisite: Second-year standing.* A survey of Third World films seen in relation to their cultural, political, and aesthetic environment. Films are selected from areas such as Latin America, the Caribbean, Africa, the Middle East, South and East Asia. Weekly screenings.
**66 or fewer credits remaining in degree programme.*

FMST 327 ***Cinéma du Tiers-Monde*** (3 crédits)
Préalable: Niveau de scolarité de la deuxième année.* Revue des films du Tiers-Monde dans leur cadre culturel, politique et esthétique. Les films choisis viennent d'Amérique latine, des Antilles, d'Afrique, du Moyen-Orient, d'Asie du Sud et de l'Est. Visionnements hebdomadaires.
**66 crédits ou moins à obtenir dans un programme conduisant à un diplôme.*

FMST 328 ***Non-fiction Film Since 1956*** (3 credits)
Prerequisite: Second-year standing*. A cross-cultural survey of contemporary developments in the documentary film. The course begins with the precursors of *cinéma-direct* in North America and Europe during the fifties, and extends through the most recent applications of *cinéma-direct* in the emerging cinemas of the Third World. Emphasis is placed on both the artistic achievement and the theoretical, cultural, and political context of the non-fiction film during this period of technological and aesthetic transition. Weekly screenings.
**66 or fewer credits remaining in degree programme.*

FMST 328 ***Le documentaire depuis 1956*** (3 crédits)
Préalable: Niveau de scolarité de la deuxième année*. Revue pan-culturelle des progrès actuels du documentaire. Le cours va de l'étude des précurseurs du cinéma direct en Amérique du Nord et en Europe durant les années 50 aux plus récentes applications chez les cinémas naissants des pays du Tiers-Monde. L'accent est mis sur l'aspect artistique et le contexte théorique, culturel et politique du documentaire durant cette période de transition technologique

et esthétique. Visionnements hebdomadaires.
**66 crédits ou moins à obtenir dans un programme conduisant à un diplôme.*

FMST 329 ***Women and Film*** (3 credits)
Prerequisite: FMST 211 or second-year standing*. An examination of films made by women, film criticism written by women, and the portrayal of women in films. These topics are considered within the context of film history and with an emphasis on their relation to ideas in contemporary feminist theory. Weekly screenings. *NOTE A/See §200.3*
**66 or fewer credits remaining in degree programme.*

FMST 331 ***Non-Fiction and Experimental Filmmakers*** (3 credits)
Prerequisite: FMST 211 or second-year standing*. An intensive study of a limited number of documentary and avant-garde filmmakers outside the mainstream of narrative fiction. The artists covered are chosen according to the interests of the instructor, with a view to suggesting a broad historical and aesthetic range of cinematic practice.
NOTE A/See §200.3
**66 or fewer credits remaining in degree programme.*

FMST 335 ***Aspects of National Cinemas*** (3 credits)
Prerequisite: Second-year standing.* An examination of films as reflections of national cultures. Films by a range of directors representing one or several national groupings such as Japan, Brazil, Eastern Europe, Great Britain, or contemporary West Germany are discussed in the context of their aesthetic, cultural, and political aspirations. Weekly screenings. *NOTE A/See §200.3*
**66 or fewer credits remaining in degree programme.*

FMST 337 ***Topics in American Cinema*** (3 credits)
Prerequisite: Second-year standing.* A lecture or seminar course which provides an opportunity for the study of limited and more specialized aspects of U.S. cinema. Topics may include individual genres, directors, production studios, historical periods, or aspects of independent cinema. Topics vary from year to year according to the instructor's field of specialization.
**66 or fewer credits remaining in degree programme.*

FMST 398 ***Special Topics in Film Studies*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A course which provides an opportunity for the study of limited and more specialized aspects of film studies.
NOTE C/See §200.3

FMST 399 ***Special Topics in Film Studies*** (6 credits)
Prerequisite: Written permission of the Department of Cinema. A course which provides an opportunity for the study of specialized aspects of film studies outside the scope of existing courses. *NOTE C/See §200.3*

FMST 409 ***Seminar in Women and Film*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. An advanced course in the study of films made by women, as well as of the representation of women in films. The topics selected for study may vary from year to year and are considered within the context of film history, contemporary feminist philosophy, and feminist film theory. Students are expected to conduct independent research for class presentation. *NOTE A/See §200.3*

FMST 411 ***Advanced Studies in Film Genres*** (3 credits)
Prerequisite: Second-year standing*; FMST 211 or 322 or COMS 310. An intensive analysis of one or two film genres, which assumes previous experience in film-genre studies. The genre is discussed in terms of its structural characteristics and the ways in which it is a product of specific social situations. Weekly screenings.
**66 or fewer credits remaining in degree programme.*

FMST 413 ***Film Comedy II*** (3 credits)
Prerequisite: FMST 313 or COMS 310 or written permission of the Department of Cinema. A continuation of FMST 313 on a more advanced level. Emphasis is placed on theoretical aspects of film comedy and the films of several major comedy directors. Weekly screenings.

FMST 414 ***Seminar in Film Directors*** (3 credits)
Prerequisite: Eighteen credits in Film Studies and written permission of the Department of Cinema. A seminar for advanced students which provides for more concentrated study of the work of specific film directors. The director or directors whose films are chosen for study varies from year to year according to the instructor's field of specialization.
NOTE C/See §200.3

FMST 416 ***Seminar in Problems in Film History*** (3 credits)
Prerequisite: Eighteen credits in Film Studies and written permission of the Department of Cinema. A seminar for advanced students which provides for the study of limited and more specialized areas of film history. The areas chosen for study vary from year to year according to the instructor's field of specialization. *NOTE C/See §200.3*

FMST 418 ***Seminar in English-Canadian Film*** (3 credits)
Prerequisite: FMST 214 or COMS 316, and

written permission of the Department of Cinema. A seminar in which selected aspects of English-Canadian film are examined and discussed. The areas chosen for study vary from year to year according to the instructor's field of specialization.

FMST 419 ***Séminaire sur le cinéma québécois*** (3 crédits)
Préalable: FMST 215 ou COMS 316, ainsi que permission écrite du département de Cinéma. Un séminaire dans lequel des aspects sélectifs du cinéma québécois sont analysés et discutés. Les sujets d'étude choisis varient d'année en année selon la spécialisation de l'instructeur.

FMST 422 ***Seminar in Film Theory and Criticism*** (3 credits)
Prerequisite: FMST 212 and written permission of the Department of Cinema. Theories including those of Sergei Eisenstein and André Bazin are studied both as explanations of the effects of films and as foundations for film criticism. The relation of contemporary theoretical writings, such as those in film semiology, to film criticism is discussed. Weekly screenings.

FMST 423 ***Seminar in Comparative Stylistic and Formal Analysis*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. An intensive course in the analysis of film style. Films are examined using an analytical projector in order to discover their formal and thematic structures. The contribution of cinematographers, editors, scriptwriters, directors, and performers to the development of a style are discussed. Weekly screenings.

FMST 424 ***Seminar in Film Narrative*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. An examination of conventions of film narrative from a theoretical and historical point of view. Innovations in narrative structure are discussed and consideration is given to the origin, development, and transformation of narrative traditions in their cultural and aesthetic context.

FMST 425 ***Seminar in Contemporary Film Theory*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A survey and analysis of major recent theoretical approaches to film. Among the topics discussed are auteurism, semiotics, textual analysis, ideological criticism, psychoanalysis, feminism, and neo-formalism. The seminar includes screenings, discussions of weekly readings, and oral presentations by the students. *NOTE A/See §200.3*

FMST 426 ***Professional Internship I*** (3 credits)
Prerequisite: Second-year standing*, enrolment in the Major in Cinema, Option C, Film Studies or the Specialization in Film Studies and written permission of the Department of Cinema. A Film Studies student who has been commissioned to work in such areas as film research, archival work, editing film publications, or writing film criticism, may seek permission to apply three credits towards the Film Studies degree programme. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The Department of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member.
NOTE A/See §200.3
**66 or fewer credits remaining in degree programme.*

FMST 427 ***Professional Internship II*** (3 credits)
Prerequisite: Second-year standing*; enrolment in the Major in Cinema, Option C, Film Studies or the Specialization in Film Studies and written permission of the Department of Cinema. A student repeating FMST 426 registers for credit under FMST 427. *NOTE A/See §200.3*
**66 or fewer credits remaining in degree programme.*

FMST 428 ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A course of independent study in which the student may explore a specific area of film studies.

FMST 429 ***Independent Studies II*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A student repeating FMST 428 registers for credit under FMST 429 provided the subject matter is different.

FMST 450 ***Film Studies Specialization Seminar*** (3 credits)
Prerequisite: Second-year standing* in the Specialization in Film Studies and written permission of the Department of Cinema. This intensive seminar includes workshops in research methodology, in advanced study and career planning, and in the practice of criticism, publication, preservation, and programming. The relation of film studies to filmmaking practice, the role of changing technology, and the current cultural context of the discipline are discussed by visiting experts from both within the University and the community at large. The course brings together all students in the Specialization in Film Studies.
**66 or fewer credits remaining in degree programme*

FMST 498 ***Special Topics in Film Studies*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A lecture or seminar course for advanced students which provides

an opportunity for the study of limited and more specialized aspects of film studies.
NOTE A,C/See §200.3

Film Animation:

NOTE: A student may register for only one course in which films are produced as a course requirement during each academic session. See §81.70.2

FMAN 202 ***Animation I*** (6 credits)
Prerequisite: Enrolment in the Major in Cinema, Option B, Film Animation or the Minor in Film Animation; or written permission of the Department of Cinema, with either FMPR 231 or six credits in a Studio Art course. A studio course introducing the theory and practice of film animation. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
NOTE: Students who have received credit for FMAN 312 may not take this course for credit.

FMAN 214 ***Technical Aspects of Film Animation*** (3 credits)
Prerequisite: Enrolment in the Major in Cinema, Option B, Film Animation or the Minor in Film Animation; and written permission of the Department of Cinema. An intensive hands-on seminar/workshop in which the principles and techniques of photographic and motion picture arts are applied to animation filmmaking.
NOTE: Students who have received credit for FMAN 314 may not take this course for credit.

FMAN 302 ***Animation II*** (6 credits)
Prerequisite: FMAN 202 and written permission of the Department of Cinema. A continuation on a more advanced level of FMAN 202.
NOTE A/See §200.3
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
NOTE: Students who have received credit for FMAN 313 may not take this course for credit.

FMAN 315 ***From Idea to Storyboard*** (3 credits)
Prerequisite: FMAN 302 previously or concurrently and written permission of the Department of Cinema. Exploration of the visual development of ideas and scripts in a storyboard form. Students participate in creative and experimental exercises which include timing, planning the sound track, and filming the storyboards.

FMAN 316 ***Animation Sound I*** (3 credits)
Prerequisite: FMAN 202 previously or concurrently and written permission of the Department of Cinema. A course in techniques of sound production for animation including music, sound effects, and voice. Aspects of sound production essential to the animator-director are treated from the initial concept to post-production including studio procedures, recording, editing, and mixing.
NOTE A/See §200.3

FMAN 319 ***Character Animation*** (3 credits)
Prerequisite: FMAN 202 previously or concurrently and written permission of the Department of Cinema. An examination of the fundamentals of character animation, its theory, techniques, and application to studio situations. Exercises in character design and dramatization are directed towards the students' particular interests and style. *NOTE A/See §200.3*
NOTE: Previous drawing experience is recommended.

FMAN 326 ***Computer Animation*** (3 credits)
Prerequisite: FMAN 302 previously or concurrently and written permission of the Department of Cinema. A studio course in aspects of 3D computer-generated animation and graphics, covering the fundamentals of image generation and motion analysis.
NOTE A/See §200.3
NOTE: Students who have received credit for this course as a special topics offering may not take this course for credit.

FMAN 352 ***3-Dimensional Animation*** (3 credits)
Prerequisite: Enrolment in the Major in Cinema, Option B, Film Animation or the Minor in Film Animation; FMAN 202; and written permission of the Department of Cinema. An intensive hands-on seminar/workshop in the art and craft of 3-D animation production. This course is designed to acquaint the student with photographic techniques, model and set construction, materials, motion control, and lighting, as it applies to animation filmmaking. Recent developments and a study of international styles and techniques are included.
NOTE: Students who have received credit for FMAN 498H may not take this course for credit.

FMAN 398 ***Special Topics in Film Animation*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. An opportunity for study of limited and more specialized aspects of film animation. *NOTE C/See §200.3*
NOTE: Students are required to bear the cost of materials.

FMAN 402 ***Animation III*** (6 credits)
Prerequisite: FMAN 302 and FMST 323 and written permission of the Department of Cinema. A continuation on a more advanced level of FMAN 302. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
NOTE: Students who have received credit for FMAN 414 may not take this course for credit.

FMAN 416 ***Animation Sound II*** (3 credits)
Prerequisite: Third-year standing* in the Major in Cinema, Option B, Film Animation; FMAN 316; and written permission of the Department of Cinema. A continuation of FMAN 316 with special concentration on post-production and experimentation with sound.
**33 or fewer credits remaining in degree programme.*

FMAN 446 ***Professional Internship I*** (3 credits)
Prerequisite: Second-year standing* in the Major in Cinema, Option B, Film Animation and written permission of the Department of Cinema. A Film Animation student who will be employed within the film industry during the same calendar year may seek permission to apply three credits towards the Film Animation degree programme. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The Department of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member. *NOTE A/See §200.3.*
**66 or fewer credits remaining in degree programme.*

FMAN 447 ***Professional Internship II*** (3 credits)
Prerequisite: Second-year standing* in the Major in Cinema, Option B, Film Animation and written permission of the Department of Cinema. A student repeating FMAN 446 registers for credit under FMAN 447. *NOTE A/See §200.3.*
**66 or fewer credits remaining in degree programme.*

FMAN 448 ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A course of independent study in which the student explores a specific area of film animation. *NOTE A,C/See §200.3*

FMAN 449 ***Independent Study II*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A student repeating FMAN 448 registers for credit under FMAN 449 provided the subject matter is different.
NOTE A/See §200.3

FMAN 498 ***Special Topics in Film Animation*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film animation. *NOTE A,C/See §200.3*

Film Production:

NOTE: A student may register for only one course in which films are produced as a course requirement during each academic session. See §81.70.2.

FMPR 231 ***Filmmaking I*** (6 credits)
Prerequisite: Enrolment in a Cinema programme; FMST 211 or 212, previously or concurrently; and written permission of the Department of Cinema. An introductory course in the theory and practice of filmmaking. This course stresses the individual student's creative efforts in producing films in super 8 and 16mm formats. Lecture and laboratory.
NOTE A/See §200.3
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

FMPR 331 ***Filmmaking Studio I*** (6 credits)
Prerequisite: Second-year standing* in the Major in Cinema, Option A, Film Production; FMPR 231 previously; FMPR 344 and 345 concurrently; FMST 318 previously or concurrently; and written permission of the Department of Cinema. An intermediate course in the theory and practice of filmmaking, emphasizing the creative possibilities available when 16mm lip-sync equipment is not used. Formats include 16mm with wild sound, super 8 with wild sound, and silent 16mm or super 8. Students work individually or as small crews, depending on the project and the format.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
**66 or fewer credits remaining in degree programme.*

FMPR 332 ***Filmmaking II*** (6 credits)
Prerequisite: Second-year standing* in the Major in Cinema, Option A, Film Production; FMPR 231 previously; FMPR 337 concurrently; and written permission of the Department of Cinema. An intermediate course in the theory and practice of filmmaking introducing lip-sync 16mm production. Topics emphasized include the creative possibilities of lip-sync 16mm, the development of ideas for films, and the preparation of these ideas for production, budgeting, production planning, and working with a film crew. Students participate in a number of productions and assume a range of roles while beginning to develop their area of specialization within the production team.
NOTE A/See §200.3
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
**66 or fewer credits remaining in degree programme.*

FMPR 334 ***Problems and Methods of Film Production and Distribution*** (3 credits)
Prerequisite: FMPR 231. Topics include organizing a film project, financial aspects of film production and distribution, legal problems, film laboratory procedures, and post-production operations. *NOTE A/See §200.3*

FMPR 335 ***Acting and Directing Acting for the Screen I*** (3 credits)
Prerequisite: Written permission of the Department of Cinema and either FMPR 331 or 332, previously or concurrently, or six credits in Theatre Performance. A studio course for Cinema and Theatre students which explores directing and performing for film primarily through exercises recorded on video for analysis. Both performers and directors examine acting and directing acting for the camera through such topics as role preparation, character development, and performance continuity. *NOTE A/See §200.3*

FMPR 337 ***Technical Aspects of Filmmaking*** (6 credits)
Prerequisite: FMPR 332 concurrently and written permission of the Department of Cinema. Creative and experimental practices in cinematography, sound, and other components of filmmaking. The complex technology of filmmaking is emphasized as forming a basis for the creative use of the medium.
NOTE A/See §200.3

FMPR 339 ***Montage in Filmmaking*** (3 credits)
Prerequisite: Written permission of the Department of Cinema and FMPR 331 or 332, previously or concurrently. Fiction and non-fiction film editing, emphasizing dynamic and continuity cutting and cutting-room techniques. Activities include editing the image in synchronized double-system, cutting music and sound effects, preparation for and supervision of the re-recording. *NOTE A/See §200.3*

FMPR 341 ***Writing for Film I*** (3 credits)
Prerequisite: FMPR 231 and written permission of the Department of Cinema. An introduction to writing for film, with special emphasis on the relation of the script to filmmaking. Students are expected to submit work of their own for discussion, analysis, and possible production in filmmaking courses. *NOTE A/See §200.3*

FMPR 343 ***Production Design*** (3 credits)
Prerequisite: Second-year standing* in Film Production, Film Animation, or Theatre Department programmes and written permission of the Department of Cinema. A practical examination of the visual aspects of film production. Topics in production design considered may include texture and visual styles, the collaborative process, project management, and the nature of constraints which apply to student and independent productions. *NOTE A/See §200.3*
**66 or fewer credits remaining in degree programme*

FMPR 344 ***Technical Aspects for Filmmaking Studio (Image)*** (3 credits)
Prerequisite: FMPR 331 concurrently; FMST 318 previously or concurrently; and written permission of the Department of Cinema. A course in which the fundamental elements of cinematography are introduced and developed by Filmmaking Studio students. Included are creative and experimental techniques employing film and video cameras, the optical printer, the animation stand.
NOTE: Students who have received credit for FMPR 338, 498E, 498G may not take this course for credit.

FMPR 345 ***Technical Aspects for Filmmaking Studio (Sound)*** (3 credits)
Prerequisite: FMPR 331 concurrently; FMST 318 previously or concurrently; and written permission of the Department of Cinema. A course in which the fundamental elements of creating a soundtrack are introduced and developed by Filmmaking Studio students. The complex technology of filmmaking is emphasized as forming a basis for the creative use of the medium.
NOTE: Students who have received credit for FMPR 338, 498E, 498G may not take this course for credit.

FMPR 350 ***Ways of Seeing in Film Production*** (3 credits)
Prerequisite: Enrolment in the Major in Cinema, Option A, Film Production or the Specialization in Film Production; and written permission of the Department of Cinema. A forum of ideas which could increase cinema's potential as a visual medium. Aspects of our visual culture are presented and discussed: work by painters, photographers, sculptors, and architects makes up the main source material for the course. Students work on individual visual projects.
NOTE A/See 200.3
NOTE: Students who have received credit for FMPR 498F may not take this course for credit.

FMPR 398 ***Special Topics in Film Production*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A course which provides an opportunity for the study of specialized aspects of film production outside the scope of existing courses. *NOTE C/See §200.3*

FMPR 399 ***Special Topics in Film Production*** (6 credits)
Prerequisite: Written permission of the Department of Cinema. A course which provides an opportunity for the study of specialized aspects of film production outside the scope of existing courses.
NOTE C/See §200.3

FMPR 431 ***Filmmaking Studio II*** (6 credits)
Prerequisite: Third-year standing* in the Specialization in Film Production or the Major in Cinema, Option A, Film Production; FMPR 331, 344, 345; and written permission of the

Department of Cinema. A continuation of FMPR 331.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
**33 or fewer credits remaining in degree programme.*

FMPR 432 ***Filmmaking III*** (6 credits)
Prerequisite: Third-year standing* in the Specialization in Film Production or the Major in Cinema, Option A, Film Production; FMPR 332 and 337; and written permission of the Department of Cinema. A continuation of FMPR 332, with students working on more advanced filmmaking projects. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
**33 or fewer credits remaining in degree programme.*

FMPR 433 ***Filmmaking Workshop*** (6 credits)
Prerequisite: Third-year standing* in the Specialization in Film Production or the Major in Cinema, Option A, Film Production; FMPR 332 and 337; and written permission of the Department of Cinema. A course in the theory and practice of filmmaking in 16mm wild sound and super 8 formats, with some access to 16mm lip-sync equipment for qualified students. The development of concepts of filmmaking introduced in FMPR 332 is continued using these formats.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
**33 or fewer credits remaining in degree programme.*

FMPR 435 ***Acting and Directing Acting for the Screen II*** (3 credits)
Prerequisite: FMPR 335 and written permission of the Department of Cinema. A continuation of FMPR 335 on a more advanced level.

FMPR 438 ***Cinematography*** (3 credits)
Prerequisite: Enrolment in the Specialization in Film Production or the Major in Cinema, Option A, Film Production; FMPR 337 or 344 and 345; and written permission of the Department of Cinema. An advanced course in camera and light for cinema. The contribution of cinematography to filmmaking is investigated through studio and location shooting exercises, lighting exercises, and lectures. Subjects such as film stocks, lenses, filters, and camera movement are discussed as elements in the creative process of filmmaking.
NOTE A/See §200.3

FMPR 439 ***Advanced Montage in Filmmaking*** (3 credits)
Prerequisite: FMPR 339 and written permission of the Department of Cinema. A continuation of FMPR 339.

FMPR 440 ***Sound for Film*** (3 credits)
Prerequisite: Enrolment in the Specialization in Film Production or the Major in Cinema, Option A, Film Production; FMPR 337 or 344 and 345; and written permission of the Department of Cinema. A course which concentrates on the interaction between sound and image in film. While it deals with advanced technical aspects of location recording and studio work, its central focus is the creative designing of the soundtrack. Emphasis is placed on individual and collective sound projects.

FMPR 441 ***Writing for Film II*** (3 credits)
Prerequisite: FMPR 341 and written permission of the Department of Cinema. A continuation of FMPR 341 on a more advanced level.

FMPR 442 ***Optical Printer Practice*** (3 credits)
Prerequisite: FMPR 337 or 344 and 345, previously or concurrently, or FMAN 314; and written permission of the Department of Cinema. A film production course assisting students in the understanding and application of advanced optical printer technology and aesthetics. *NOTE A/See §200.3*

FMPR 445 ***Professional Internship*** (6 credits)
Prerequisite: Second-year standing* in the Specialization in Film Production or the Major in Cinema, Option A, Film Production; and written permission of the Department of Cinema. A Film Production student who will be employed within the film industry during the same calendar year may seek permission to apply six credits towards the Film Production degree programme. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The Department of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member. *NOTE A/See 200.3*
**66 or fewer credits remaining in degree programme.*

FMPR 446 ***Professional Internship I*** (3 credits)
Prerequisite: Enrolment in the Major in Cinema, Option A, Film Production or in the Specialization in Film Production; and written permission of the Department of Cinema. A Film Production student who will be employed within the film industry during the same calendar year may seek permission to apply three credits towards the Film Production degree programme. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The Department of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member. *NOTE A/See §200.3*

FMPR 447 ***Professional Internship II*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A student repeating FMPR 446 for credit registers under FMPR 447.
NOTE A/See §200.3

FMPR 448 ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A course of independent study in which the student explores a specific area of film production.
NOTE A,C/See §200.3

FMPR 449 ***Independent Study II*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A student repeating FMPR 448 registers for credit under FMPR 449 provided the subject matter is different.
NOTE A/See §200.3

FMPR 450 ***Film Production Specialization Seminar*** (3 credits)
Prerequisite: Enrolment in the Specialization in Film Production and written permission of the Department of Cinema. A seminar offering in-depth, practical approaches to artistic and technical situations. This course brings together all students in the Specialization in Film Production.

FMPR 451 ***Advanced Project Internship I*** (3 credits)
Prerequisite: Enrolment in the Specialization in Film Production or the Major in Cinema, Option A, Film Production; FMPR 331 or 332 previously or concurrently; and written permission of the Department of Cinema. A Film Production student who contributes in a key position to a graduate project in the Film Production MFA programme may apply for credits on the understanding that the application take place prior to the production and is authorized by the faculty members responsible for both programmes.

FMPR 452 ***Advanced Project Internship II*** (3 credits)
Prerequisite: FMPR 451 and written permission of the Department of Cinema. A student repeating FMPR 451 for credit registers under FMPR 452.

FMPR 458 ***Independent Study*** (6 credits)
Prerequisite: Written permission of the Department of Cinema. A course of independent study in which the student explores a specific area of Film Production.

FMPR 498 ***Special Topics in Film Production*** (3 credits)
Prerequisite: Written permission of the Department of Cinema. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film production. *NOTE A,C/See §200.3*

FMPR 499 ***Special Topics in Film Production*** (6 credits)
Prerequisite: Written permission of the Department of Cinema. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film production. *NOTE A,C/See §200.3*

81.70.2
Filmmaking

Courses in which films are produced as a course requirement are:
FMAN 202[6], 302[6], 402[6]
FMPR 231[6], 331[6], 332[6], 431[6], 432[6], 433[6]

81.70.3
Communication Studies Film Courses

NOTE: For course descriptions see §31.070.

Students enrolled in the Specialization in Film Studies, the Specialization in Film Production, or the Major in Cinema may select up to 12 credits from the Communication Studies courses listed below as part of their required Film Studies electives. Similarly, students enrolled in the Minor in Cinema and the Minor in Film Studies may select up to six credits from the Communication Studies courses listed below, plus other Communication Studies courses, with the permission of the coordinator of Film Studies.
These credits (courses) must be considered as Film Studies electives for degree purposes.

COMS 306 Documentary Film (3 credits)
COMS 307 Hollywood in the Silent Era (3 credits)
COMS 308 The German Expressionist Movement (3 credits)
COMS 309 The Revolutionary Soviet Cinema (3 credits)
COMS 310 The Hollywood Genres (3 credits)
COMS 311 The Classic French Cinema (3 credits)
COMS 312 La Nouvelle Vague (3 credits)
COMS 313 Ingmar Bergman and the Scandinavians (3 credits)
COMS 314 The Italians, from Neo-Realism to Today (3 credits)
COMS 315 Shakespeare in the Cinema (3 credits)
COMS 316 The Canadian Cinema (3 credits)

81.80 CONTEMPORARY DANCE

Faculty

Chair
SILVY PANET-RAYMOND, *Associate Professor*

Professor
ELIZABETH LANGLEY

Assistant Professor
JANET OXLEY

Location

Loyola Campus
TJ Building, Room: TJ 307
(514) 848-4740

Department Objectives

The Contemporary Dance Department offers comprehensive training which combines formal dance training with extensive studies in choreography. Encouraging students to discover and develop their individual creative capacities as both dancers and choreographers is the mission of the Dance programme.
Performance is a crucial element in this development, and students at Concordia gain valuable experience performing or staging their own choreographies.

Programme

Students are responsible for satisfying their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.
The superscript indicates credit value.

66 BFA Major in Contemporary Dance
18 Dance 200[6], 300[6], 400[6]
12 Chosen from Dance 210[6], 310[6], 330[6], 410[6]
12 Dance 320[6], 420[6]
3 Dance 211[3]
3 Dance 313[3]
6 Dance 230[6]
3 Theatre Performance 201[3]
3 Design Art 202[3]
6 Electives from within the Faculty of Fine Arts, excluding courses offered in Dance.

81.80.1 Admission to Contemporary Dance

There is a distinct admission procedure for admission to the Major in Contemporary Dance in addition to the normal admission process of Concordia University. All applicants to Contemporary Dance are required to attend an *audition* as part of the admission process.
Applicants should preferably contact the Department of Contemporary Dance before Friday, March 15, 1996 to arrange their audition and for detailed information regarding admission to Dance. For late auditions in August, contact the Department preferably by June 28.

Courses

DANC 200 ***Workshop in Dance I*** (6 credits)
Prerequisite: DANC 210, previously or concurrently, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance.
Studies of the creative process in dance, emphasizing movement exploration in relation to form and content. Various approaches to dance are introduced and personal and group research is developed. Consideration is given to visual, verbal, and acoustic elements in dance. Studio: four hours per week. Laboratory: two hours per week. *NOTE A/See §200.3*

DANC 210 ***Body Movement I*** (6 credits)
Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. The technical development of suppleness, strength, coordination, and kinetic awareness is emphasized. Body movement is discussed and developed as preparation for dance. Studio: six hours per week.

DANC 211 ***Dance Traditions*** (3 credits)
A survey of the history of dance, including relations between older dance traditions and styles of modern dance. Lecture course.

DANC 230 ***Sound and Silence for the Dancer*** (6 credits)
Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. The

basics of music theory through guided analytical text using singing, single line score reading and moving, including the study of rhythm, melody, harmony, tempi, dynamics, tone colour, and musical forms with emphasis on the fundamental understanding of rhythm, melody, and harmony physically and mentally.

DANC 240* ***Principles of Contemporary Dance*** (6 credits)
Prerequisite: Written permission of the Department of Contemporary Dance. A survey of technical skills, improvisation, and dance composition. Studio: four hours per week. Laboratory: two hours per week.
**Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their degree programme.*

DANC 261 ***Summer Workshop in Dance I*** (3 credits)
Prerequisite: Written permission of the Department of Contemporary Dance. Sequences of studio sessions which may include body movement, improvisation, performance technique, and choreography. Studio: four hours per week. Laboratory: two hours per week.
NOTE: Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their programme requirements.

DANC 262 ***Summer Workshop in Dance II*** (3 credits)
Prerequisite: Written permission of the Department of Contemporary Dance. A continuation of DANC 261. Studio: four hours per week. Laboratory: two hours per week.
NOTE: Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their programme requirements.

DANC 300 ***Workshop in Dance II*** (6 credits)
Prerequisite: DANC 200, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A continuation of DANC 200. Studio: four hours per week. Laboratory: two hours per week.

DANC 310 ***Body Movement II*** (6 credits)
Prerequisite: DANC 210 or DANC 330, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A continuation of DANC 210. Studio: six hours per week.

DANC 313 ***Aspects of Production for Dance*** (3 credits)
Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A study of sources and materials used in the technical aspects of dance production. Topics may include costume, make-up, and audio-visual support. Lecture course.

DANC 320 ***Choreography I*** (6 credits)
Prerequisite: DANC 300, previously or concurrently, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. The organization of movement, space, and time into dance performances. The process of choreographic creation is followed through stages of originating the idea, developing the theme and structure, rehearsing, and performing. Students' works are performed. Studio: four hours per week. Practice laboratory: two hours per week. Rehearsal: four hours per week.

DANC 330 ***Principles of Anatomy and Body Movement*** (6 credits)
Prerequisite: DANC 210, and written permission of the Department of Contemporary Dance. A workshop of movement fundamentals based on the practical understanding of anatomy and dance technique. Studio: six hours per week.

DANC 398 ***Special Topics in Dance*** (3 credits)
Prerequisite: Written permission of the Department of Contemporary Dance. Topics vary from year to year, taking into account the special aptitudes of instructors and students. Studio: six hours. *NOTE C/See §200.3*

DANC 400 ***Workshop in Dance III*** (6 credits)
Prerequisite: DANC 300, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A workshop that provides opportunities for the extension of creative potential, improvement of performance abilities, and development of methodologies in research, using movement and other related art forms. Studio: four hours per week. Laboratory: two hours per week.

DANC 410 ***Body Movement III*** (6 credits)
Prerequisite: DANC 310 or 330 previously and DANC 400, previously or concurrently, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A continuation of DANC 310. Studio: six hours per week.

DANC 420 ***Choreography II*** (6 credits)
Prerequisite: DANC 320, and enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. A continuation of DANC 320. Studio: four hours per week. Practice laboratory: two hours per week. Rehearsal: four hours per week.

DANC 441 ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Contemporary Dance. A course

of independent study in which the student explores a specific area of contemporary dance. *NOTE A/See §200.3*

DANC 442 ***Independent Study II*** (3 credits) Prerequisite: Written permission of the Department of Contemporary Dance. A student repeating DANC 441 registers for credit under DANC 442. *NOTE A/See §200.3*

DANC 499 ***Topics in Dance*** (6 credits) Prerequisite: Written permission of the Department of Contemporary Dance. Advanced choreography where movement shares equal emphasis with all other arts developed into multi-media theatre. Studio: four hours per week. Practice laboratory: two hours per week. Rehearsal: four hours per week.

81.90 DESIGN ART

Faculty

Chair
SUSAN HUDSON, *Associate Professor*

DON RITTER
LYDIA SHARMAN

Associate Professors
CHRISTOPHER GABRIEL-LACKI
KAT O'BRIEN

Assistant Professors
DIANE BISSON
GREGORY P. GARVEY

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 244
(514) 848-4626

Department Objectives

The Department of Design Art offers a three-year undergraduate programme providing a firm foundation for what is essentially a multi-faceted discipline. The programme emphasizes the interdependence of design, fine arts, humanities, and sciences. Personal creative expression and aesthetic sensitivity are balanced by an understanding of the cultural impact, societal applications, and ethical responsibilities of the design artist.

Students study design history, theory, and practice, and acquire an understanding of contemporary critical issues and innovative practices. In both the theoretical and practical components of the programme, the curriculum emphasizes creative experimentation and imaginative risk-taking. Students are encouraged to develop a keen sense of critical analysis through a process of rational inquiry, and to develop and utilize powers of intellectual curiosity, flexibility, and imagination in problem-solving. Visual literacy, articulate verbal and written expression, together with an understanding of fundamental technical skills are all integral components of the programme.

Programme

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.
The superscript indicates credit value.

72 BFA Major in Design Art

30 DART 200[6], 210[6], 300[6], 310[6], 400[6]
6-12 DART 422[6], 423[6]
0-6 DART 410[6], 424[6], 425[6], 440[6], 499[6]
6 DRAW 200[6]
6 Studio Art* elective chosen in consultation with an adviser
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective outside the Department of Design Art
6 DART 260[6]
6 Art History electives or Art 261[6]

**Chosen from the following departments: Design Art; Painting and Drawing; Printmaking and Photography; Sculpture, Ceramics and Fibres.*

81.90.1 Admission to the Major in Design Art

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Design Art.
All applicants must submit a *portfolio* as part of the admission process.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works larger than 20 x 24 inches (50 x 60 centimetres) and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat, unframed, and well-presented.
7. Out-of-town applicants may submit photographs, slides, videos and/or CD's of their work.

In addition:

8. The portfolio should demonstrate creative potential as a designer/artist. Works presented must represent an ability to draw, to compose, to use colour, and to work in other visual mediums including work in three dimensions.
9. A *letter of intent* written in either English or French must be submitted to the Department office by the applicants when arranging an interview appointment. The letter must state the reason for applying to the Design Art programme and the ways in which the applicant's education background, work experience, and general interests can act as a preparation for the Design Art programme.
10. Applicants are required to attend an *interview* during which they will be required to answer questions pertinent to Design Art and other disciplines. Applicants must contact the Department of Design Art early in March (before the deadline date of March 15) for an appointment time. Late applicants will be considered when appropriate. Please contact the Department at (514) 848-4626 for additional information.
11. Applicants are required to submit a copy of their transcript to the Department office when arranging an interview appointment.
12. Portfolios must be brought by the applicants to their interview.

NOTE: Students are required to bear the cost of materials in Studio Art courses.

Courses

DART 200 ***Design Art Theory and Practice*** (6 credits)
Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. An introduction to design art concepts and methods. Content focuses on the use of artistic innovation in visual, perceptual, and structural elements; including line, shape, colour, mass, materials, and their organization. *NOTE A/See §200.3*

DART 202 ***Design in the Arts I*** (3 credits)
Prerequisite: Written permission of the Department of Design Art, enrolment in the Major in Contemporary Dance, or second-year standing* in a Fine Arts degree programme. A foundation course in the elements and principles of design for Fine Arts students with concentrations outside of Studio Art. The focus is on process rather than product creation in this theoretical and practical preparation for design problems in the student's area of concentration. *NOTE A/See §200.3*
NOTE: Students in a Specialization/Major in a Studio Art department may not take this course for credit in their degree programme.
**fewer than 66 credits remaining in degree programme.*

DART 203 ***Design in the Arts II*** (3 credits)
Prerequisite: DART 202. A continuation of DART 202. *NOTE A/See §200.3*
NOTE: Students in a Specialization/Major in a Studio Art department may not take this course for credit in their degree programme.

DART 210 ***Introduction to Research Methodology in Design Art*** (6 credits)
Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. A project-based study providing basic experiences in research methodology including light and colour theories. The content of this course focuses on the personal, economic, and cultural implications of design. Knowledge from a variety of academic and other disciplines is applied to the design art process. *NOTE A/See §200.3*

DART 260 ***The History of Design: Theory and Practice*** (6 credits)
Prerequisite: Enrolment in the Major in Design Art or written permission of the Department of Design Art. A consideration of design theory and practice, with emphasis on the interrelationship of stylistic, socio-cultural, and technical aspects. Examples are drawn from a broad spectrum of epochs and geographical areas, but particular attention is given to historical approaches that have importance for contemporary design. *NOTE A/See §200.3*

DART 300 ***Individual Projects in Design Art (Analysis and Application)*** (6 credits)
Prerequisite: DART 200 and either enrolment in the Major in Design Art or written permission of the Department of Design Art. Problem-solving in design art. Individual projects involving experimentation and innovation are completed and analysed in terms of their application to the assigned objectives. *NOTE A/See §200.3*

DART 310 ***Collaborative Projects in Design Art (Research Coordination)*** (6 credits)
Prerequisite: DART 200, 210; DART 300, previously or concurrently, and either enrolment in the Major in Design Art or written permission of the Department of Design Art. Problem-solving in design art. Collaborative projects involving experimentation and innovation are completed and analysed in terms of their application to the assigned objectives. Team research and coordination are major requirements of this course. *NOTE A/See §200.3*

DART 400 ***Design Art Seminar*** (6 credits)
Prerequisite: DART 300, 310, and either

enrolment in the Major in Design Art or written permission of the Department of Design Art. A theory course involving discussion and lectures, in addition to workshops and field trips outside of course time. Standards and theories of design, both past and present, are discussed. Student seminar presentations are required. *NOTE A/See §200.3*

DART 410 ***The Computer as a Design Tool*** (6 credits)
Prerequisite: DART 300 and either enrolment in the Major in Design Art or written permission of the Department of Design Art. A project-based course working with computers for design art purposes.

DART 422 ***Experimental Design: Image*** (6 credits)
Prerequisite: DART 300 and either enrolment in the Major in Design Art or written permission of the Department of Design Art. A design studio in which innovative concepts, techniques, and tools of image-making are investigated and developed. *NOTE A/See §200.3*

DART 423 ***Experimental Design: Object*** (6 credits)
Prerequisite: DART 300 and either enrolment in the Major in Design Art or written permission of the Department of Design Art. A design studio in which innovative concepts, techniques, and tools of object-making are investigated and developed. *NOTE A/See §200.3*

DART 424 ***Applied Design: Image*** (6 credits)
Prerequisite: DART 300 and either enrolment in the Major in Design Art or written permission of the Department of Design Art. A design studio course in which individual student projects, based upon social and environmental issues, address the use of image in the marketplace. A range of practices employed in contemporary image-making is investigated. *NOTE A/See §200.3*

DART 425 ***Applied Design: Object*** (6 credits)
Prerequisite: DART 300 and either enrolment in the Major in Design Art or written permission of the Department of Design Art. A design studio course in which individual student projects, based upon social and environmental issues, address the use of object in the marketplace. *NOTE A/See §200.3*

DART 440 ***Independent Study*** (6 credits)
Prerequisite: Written permission of the Department of Design Art. Independent study in which the student explores a special area of design art. *NOTE A/See §200.3*

DART 499 ***Special Topics in Design Art*** (6 credits)
Prerequisite: Written permission of the Department of Design Art. A course of independent study in which the student explores a special area of design art. *NOTE A/See §200.3*

The following courses are electives in the BFA Major in Design Art:

Studio Fine Arts:

SFAR 250 ***Visual Language as Content*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course focusing on visual language as content. Colour and its permutations, line, shape, pattern, texture, and composition are the personal vocabulary of each artist. The claiming of this language is central to an art practice; it will be established through two- and three-dimensional projects which challenge students to explore their capacity to visually articulate their complexity as beings in nature and culture.

SFAR 260 ***Integrated Drawing: Intersections*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which embraces various attitudes towards drawing. As an alternative approach, students experience the medium from the different perspectives of various disciplines. The course will explore the possibilities of non-traditional materials and strategies for producing drawings. Analogue (narrative) and notation, as well as the notion of aesthetic and non-aesthetic uses of drawing (such as mapping, charting, making diagrams, documenting) will be investigated.

SFAR 270 ***Extended Studio Practices*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which introduces the diversity of contemporary art practice and theory. Alternative venues, interactive art forms, questions of authorship, the significance of the object/artifact, and perceptions other than visual are among the subjects to be explored.

81.100 MUSIC

Faculty

Chair
MARK CORWIN, *Associate Professor*

Professor
WOLFGANG BOTTENBERG

Associate Professors
LISELYN ADAMS
KEVIN AUSTIN
JERI BROWN
ALLAN CROSSMAN
CHARLES ELLISON
SHERMAN FRIEDLAND
ANDREW HOMZY
CHRISTOPHER JACKSON
ISABELLE PANNETON

Assistant Professor
ROD ELLIAS

Location

Loyola Campus
Refectory Building, Room: RF 304
(514) 848-4705

Department Objectives

The Mission of the Department of Music is to develop musicians, to support musical activities through teaching, research and performances, and to foster the appreciation of the value of music and fine arts in society.

The Department is committed to the development of musicians through options and opportunities found within the multi-disciplinary context of the Faculty of Fine Arts through generalized and specialized education.

Areas of study include theory, history, instrumental and vocal studies, including ensembles and private study, composition, jazz, electroacoustics/recording, and music technology.

Academic scholarship, research, and creativity enhance faculty members' teaching which furthers the Department's involvement in national and international artistic and scholarly communities.

Programmes

Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20.
The superscript indicates credit value.

SPECIALIZATION IN MUSIC

The Faculty of Fine Arts offers four Specialization programmes in Music, each of 66 credits. Students applying for entrance to the Department are accepted into the Major in Integrative Music Studies. Upon completion of 30 credits, students may apply for transfer into a Specialization. Acceptance into a Specialization is based on the student's general academic performance in all University courses, but especially in the Music courses.

66 BFA Specialization in Jazz Studies

- 6 JAZZ 200[6] or, if exempt, Department of Music electives, excluding MUSI 200 and INMS 209 and 250
- 21 JPER 220[6]; INMS 310[6], 350[6*]; MPER 231[3]
- 6 MUSI 230[6] or MUSI 231[3] and 331[3]
- 6 MHIS 200[6] or, if exempt, MHIS electives
- 6 MHIS electives
- 18 Chosen from JAZZ 301[3], 302[3], 305[6], 401[3], 402[3], 405[6]; JPER 321[3], 330[6], 341[3], 421[3], 422[3], 430[6], 441[3]
- 3 Department of Music electives, excluding MUSI 200, INMS 209 and 250, chosen in consultation with a Music adviser.

**With permission of the Department of Music, students with exemption for INMS 350 substitute INMS 450.*

66 BFA Specialization in Music Performance Studies

- 21 INMS 310[6], 350[6*]; MPER 231[3], 490[6]
- 6 MUSI 230[6] or MUSI 231[3] and 331[3]
- 6 MHIS 200[6] or, if exempt, MHIS electives
- 6 MHIS electives
- 6 MUSI 330[6] or MPER 390[6]
- 12 Chosen from MPER 201[3], 301[3], 321[3], 322[3], 331[3], 398[3], 399[6], 401[3], 421[3], 422[3], 431[3], 498[3], 499[6]
- 9 MPER 370[6], and/or Department of Music electives, excluding MUSI 200, INMS 209 and 250, chosen in consultation with a Music adviser

**With permission of the Department of Music, students with exemption for INMS 350 substitute INMS 450.*

66 BFA Specialization in Music Theory/ Composition

21 INMS 310[6], 350[6], 450[6]; MPER 231[3]
6 MUSI 230[6] or MUSI 231[3] and 331[3]
6 MHIS 200[6] or, if exempt, MHIS electives
6 MHIS electives
6-12 INMS 320[6], 360[6], 398[3], 399[6]; JAZZ 305[6]; EAMT 205[6]
6 Chosen from INMS 460[6], 498[3], 499[6]; EAMT 305[6]; JAZZ 301[3], 302[3], 405[6]
9-15 Department of Music electives, excluding MUSI 200, INMS 209 and 250, chosen in consultation with an adviser

66 BFA Specialization in Selected Music Studies

15 INMS 310[6], 350[6*]; MPER 231[3]
6 MUSI 230[6] or MUSI 231[3] and 331[3]
6 MHIS 200[6] or, if exempt, MHIS electives
6 MHIS electives
3-6 MUSI 491[3], 492[3]
27-30 Department of Music electives, excluding MUSI 200, INMS 209 and 250, chosen in consultation with a Music adviser

**With permission of the Department of Music, students with exemption for INMS 350 substitute INMS 450.*

Eligibility:
Completion of 30 credits, with a "B" average or better.

Entrance:
Submission and approval of plan of course work and Special Project (MUSI 491).

Review:
Upon completion of the courses in this Specialization, the Special Project is evaluated by the appropriate Review Committee. The type of evaluation used depends upon the nature of the project: exhibition, concert, recording, essay, musical production, etc.

54 BFA Major in Integrative Music Studies

24 INMS 209[3], 250[6], 310[6], 350[6*]; MPER 231[3]
3-6 MUSI 230[6], 231[3], 331[3]
6 MHIS 200[6] or, if exempt, MHIS electives
6 MHIS electives
12-15 Department of Music electives, excluding MUSI 200

**With permission of the Department of Music, students with exemption for INMS 350 substitute INMS 450.*

24 Minor in Music

9 INMS 209[3] and 250[6] or, if exempt, Music electives selected in consultation with a Music adviser
15 Music electives chosen in consultation with a Music adviser

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81.100.1 Admission to Programmes in Music

The Department of Music has a distinct admission procedure in addition to the normal admission process of Concordia University. All applicants (to Music programmes) attend an interview/audition as part of the admission process. At the time of their interview they will be required to write a Theory Placement Test (for placement in theory courses).
Applicants are required to contact the Department of Music before March 1 to arrange their appointments and obtain other information regarding admission procedures. Applicants are admitted to the Major in Integrative Music Studies.

81.100.2 Admission to Courses in Music for Non-Music Students

Specific procedures must be followed by all non-Music Majors wishing to register in the Department of Music.

a) Not all courses are available to non-Music students. Please consult the Department of Music for policy and accessibility of courses.
b) Students who wish to register for courses which have a theory prerequisite, given availability, must write the Theory Placement Test. This is done in the Department of Music at least two weeks prior to the registration appointment date.
c) Students who wish to sing or play in an ensemble must contact the Department of Music for information concerning audition and registration for Music Performance courses.

Courses

For specific information regarding entrance to courses in the Department of Music please see above.

Music:

MUSI 200 ***Music Literacy and Keyboard Skills*** (6 credits)
An intensive introductory course in basic musical materials, with integrated practice in aural training and keyboard skills.
NOTE: Students in a Major, Minor, or Specialization programme in the Department of Music may not take this course for credit towards their degrees.
NOTE: Students who have received credit for this topic under INMS 499 may not take this course for credit.

MUSI 223 ***Understanding Music*** (3 credits)
A course in analytical listening for the student who has little or no musical background. The works studied represent the major styles and idioms of Western music. *NOTE A/See §200.3*
NOTE: Students in a Major, Minor, or Specialization programme in the Department of Music may not take this course for credit towards their degrees.

MUSI 230 ***Private Study BI*** (6 credits)
Prerequisite: Written permission of the Department of Music. This course offers individual vocal or instrumental instruction in an approved area of music coordinated with the student's programme. *NOTE A/See §200.3*
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.

MUSI 231 ***Private Study AI*** (3 credits)
Prerequisite: Written permission of the Department of Music. This course offers individual vocal or instrumental instruction in an approved area of music coordinated with the student's programme.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.

MUSI 330 ***Private Study BII*** (6 credits)
Prerequisite: MUSI 230 or MUSI 231 and 331, and written permission of the Department of Music. A continuation of MUSI 230.
NOTE A/See §200.3
NOTE: Students enrolled in the Specialization in Music Performance Studies register in MPER 390.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.

MUSI 331 ***Private Study AII*** (3 credits)
Prerequisite: MUSI 231 and written permission of the Department of Music. A continuation of MUSI 231.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.

MUSI 398 ***Special Topics in Music*** (3 credits)
Prerequisite: Written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

MUSI 399 ***Special Topics in Music*** (6 credits)
Prerequisite: Written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

MUSI 430 ***Private Study BIII*** (6 credits)
Prerequisite: MUSI 330 and written permission of the Department of Music. A continuation of MUSI 330. *NOTE A/See §200.3*
NOTE: Students enrolled in the Specialization in Music Performance Studies register in MPER 490.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.

MUSI 431 ***Private Study AIII*** (3 credits)
Prerequisite: MUSI 331 and written permission of the Department of Music. A continuation of MUSI 331.
NOTE: Students are required to assume part of the cost of private lessons.
NOTE: Upon the recommendation of the individual instructor, public performance may be required as part of the course.

MUSI 491 ***Special Project in Music*** (3 credits)
Prerequisite: Written permission of the Department of Music. This course is intended for students enrolled in the Specialization in Selected Music Studies. It affords an opportunity for extensive development of the final project under the direction of a Faculty member. The content of this course varies according to the particular area being studied.
NOTE: Students repeating MUSI 491 register for MUSI 492 for credit provided the subject matter is different.
NOTE: If the special project is within the realm of performance, the student is required to participate in public performances.

MUSI 492 ***Special Project in Music*** (3 credits)
Prerequisite: MUSI 491 and written permission of the Department of Music. A continuation of MUSI 491.
NOTE: If the special project is within the realm of performance, the student is required to participate in public performances.

MUSI 498 ***Special Topics in Music*** (3 credits)
Prerequisite: Written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

MUSI 499 ***Special Topics in Music*** (6 credits)
Prerequisite: Written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

Electroacoustics and Music Technology:

EAMT 205 ***Electroacoustics I*** (6 credits)
Prerequisite: Written permission of the Department of Music. A seminar/workshop in electroacoustics introducing composition

through a series of directed studies involving tape editing, recording, musique concrète, processing of analog sounds, and analog synthesis. Other topics include history, acoustics and psycho-acoustics, recent technological developments, digital signal processing, computer applications, and MIDI. Classroom and laboratory. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of materials.
NOTE: Students who have received credit for CMUS 310 may not take this course for credit.

EAMT 305 ***Electroacoustics II*** (6 credits)
Prerequisite: EAMT 205. A seminar/workshop in electroacoustics with continued work in composition, history, and sound technology. Technological developments, computer applications, MIDI, and contemporary techniques are explored in depth through a series of directed studies involving digital signal processing, multi-track studio techniques, digital synthesis and sampling. Classroom and laboratory.
NOTE A/See §200.3
NOTE: Students are required to bear the cost of materials.
NOTE: Students who have received credit for CMUS 410 may not take this course for credit.

EAMT 350 ***Sound Recording and Reinforcement I*** (6 credits)
Prerequisite: INMS 209 and 250, and written permission of the Department of Music. An intensive hands-on seminar/workshop studying the techniques used to record and edit music in settings ranging from live concert performances to studio session recordings. Hands-on experience and aural perception is developed during ensemble rehearsal and recording sessions. Emphasis is placed on production topics such as multi-track recording, microphone placement systems, audio processes. An understanding of the language of music through basic music appreciation skills as they relate to recording and editing of music is developed.
NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 350 may not take this course for credit.

EAMT 398 ***Special Topics in Electroacoustics and Technology*** (3 credits)
Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in electroacoustics and technology.

EAMT 399 ***Special Topics in Electroacoustics and Technology*** (6 credits)
Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in electroacoustics and technology.

EAMT 406 ***Electroacoustic Composition Seminar/Workshop I*** (3 credits)
Prerequisite: EAMT 305. A seminar/workshop for advanced students in electroacoustics. The focus is compositional. An interdisciplinary aspect to the final project is encouraged. Classroom and laboratory. *NOTE C/See §200.3*
NOTE: This is a full-year course.
NOTE: Students are required to bear the cost of materials.
NOTE: Students who have received credit for CMUS 446 may not take this course for credit.

EAMT 407 ***Electroacoustic Composition Seminar/Workshop II*** (3 credits)
Prerequisite: EAMT 406. A continuation of EAMT 406.
NOTE: This is a full-year course.
NOTE: Students are required to bear the cost of materials.
NOTE: Students who have received credit for CMUS 447 may not take this course for credit.

EAMT 451 ***Sound Recording and Reinforcement II*** (3 credits)
Prerequisite: EAMT 350. A continuation of EAMT 350. Emphasis is on advanced independent projects.
NOTE: This is a full-year course.
NOTE: Students who have received credit for CMUS 450 may not take this course for credit.

EAMT 452 ***Sound Recording and Reinforcement III*** (3 credits)
Prerequisite: EAMT 451. A continuation of EAMT 451.
NOTE: This is a full-year course.

EAMT 471* ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Music. A student-designed course of study, approved by an advisor, that focuses on an area of electroacoustics and/or music technology.
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

EAMT 472* ***Independent Study II*** (3 credits)
Prerequisite: EAMT 471 and written permission of the Department of Music. A student repeating EAMT 471 registers for EAMT 472 for credit.
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

EAMT 498 ***Special Topics in Electroacoustics and Technology*** (3 credits)
Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in electroacoustics and technology.

EAMT 499 ***Special Topics in Electroacoustics and Technology*** (6 credits)
Prerequisite: Written permission of the

Department of Music. An advanced study of a selected area not available in other courses in electroacoustics and technology.

Integrative Music Studies:

INMS 209 ***Aural Perception I*** (3 credits)
Prerequisite: MUSI 200 or exemption. A course designed to develop the musical ear through sight-singing, dictation, aural analysis. Classroom and laboratory.
NOTE: Students enrolled in any specialization offered by the Department of Music may not apply credits for this course towards the 90-credit degree requirements.
NOTE: Students who have received credit for this topic under INMS 499 or MUSI 210 may not take this course for credit.

INMS 250 ***Music Theory I*** (6 credits)
Prerequisite: MUSI 200 or exemption. An extensive course in music theory, including diatonic harmony, counterpoint, and keyboard skills.
NOTE: Students enrolled in any specialization offered by the Department of Music may not apply credits for this course towards the 90-credit degree requirements.
NOTE: Students who have received credit for this topic under INMS 499 or MUSI 210 may not take this course for credit.

INMS 310 ***Aural Perception II*** (6 credits)
Prerequisite: INMS 209 or exemption. A course in aural development through sight-reading, dictation, transcription and aural analysis.
NOTE A/See §200.3

INMS 320 ***Comparative Analysis I*** (6 credits)
Prerequisite: INMS 350 or exemption. Development of analytical methodology. Study of selected works representing various forms and styles from different historical periods.
NOTE A/See §200.3

INMS 350 ***Music Theory II*** (6 credits)
Prerequisite: INMS 250 or exemption. A workshop in theory, studying further development in chromatic harmony, counterpoint, and analysis. Approaches may include compositional exercises.
NOTE A/See §200.3
NOTE: Students who have received credit for INMS 200 may not take this course for credit.

INMS 360 ***Music Composition I*** (6 credits)
Prerequisite: Written permission of the Department of Music. A seminar/workshop in composition. Emphasis is on the development of the individual's composition skills.
NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 320 may not take this course for credit.

INMS 398 ***Special Topics in Music Theory/Composition*** (3 credits)
Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in theory, aural perception, composition, or orchestration.

INMS 399 ***Special Topics in Music Theory/Composition*** (6 credits)
Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in theory, aural perception, composition, or orchestration.

INMS 410 ***Advanced Aural Training*** (6 credits)
Prerequisite: INMS 310 or exemption. An intensive study of selected problems in hearing, analysing, and transcribing music. The course combines individual and group exercises.
NOTE A/See §200.3

INMS 450 ***Advanced Music Theory*** (6 credits)
Prerequisite: INMS 350 or exemption. Analytical and compositional study of chromatic harmony, counterpoint, and longer forms, focusing on the musical styles of the nineteenth and twentieth centuries. *NOTE A/See §200.3*
NOTE: Students who have received credit for INMS 300 may not take this course for credit.

INMS 460 ***Music Composition II*** (6 credits)
Prerequisite: INMS 360 and written permission of the Department of Music. A continuation of INMS 360. *NOTE A/See §200.3*
NOTE: Students who have received credit for CMUS 420 may not take this course for credit.

INMS 471* ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of music theory, analysis, aural perception, orchestration, and/or related disciplines, and involves consultation with an adviser. *NOTE C/See §200.3*
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

INMS 472* ***Independent Study II*** (3 credits)
Prerequisite: Written permission of the Department of Music. A student repeating INMS 471 registers for INMS 472 for credit.
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

INMS 498 ***Special Topics in Music Theory/Composition*** (3 credits)
Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in theory, aural perception, composition, or orchestration.

INMS 499 ***Special Topics in Music Theory/Composition*** (6 credits)
Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in theory, aural perception, composition, or orchestration.

Jazz Studies:

JAZZ 200 ***The Language of Jazz*** (6 credits)
Prerequisite: Written permission of the Department of Music. An introduction to the syntax, style, aesthetics, and sociology of jazz. The complete spectrum of styles and artists serves as the basis of materials for the course. *NOTE A/See §200.3*
NOTE: Students who have received credit for CMUS 200 may not take this course for credit.

JAZZ 301 ***Jazz Harmony*** (3 credits)
Prerequisite: JAZZ 200; MUSI 200; or exemptions. The basics of jazz harmony.
NOTE: Students who have received credit for this topic under an INMS 498 number may not take this course for credit.

JAZZ 302 ***Jazz Arranging I*** (3 credits)
Prerequisite: JAZZ 301. The introductory study of writing arrangements based upon compositions from the American popular song and jazz repertoires for small and medium-size jazz ensembles. *NOTE A/See §200.3*
NOTE: Students who have received credit for INMS 332 may not take this course for credit.

JAZZ 305 ***Jazz Composition I*** (6 credits)
Prerequisite: JAZZ 302. A seminar/workshop in jazz composition. After an examination of components of composition from the jazz repertoire, students write original music based on the blues, American popular song forms, and such idioms as those in the style of bebop, bossa nova, ragtime, and modal jazz.
NOTE A/See §200.3
NOTE: Students who have received credit for CMUS 330 may not take this course for credit.

JAZZ 398 ***Special Topics in Jazz Studies*** (3 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

JAZZ 399 ***Special Topics in Jazz Studies*** (6 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

JAZZ 401 ***Jazz Arranging II*** (3 credits)
Prerequisite: JAZZ 302. The continued study of writing arrangements for large ensembles including original compositions and jazz repertoire. *NOTE A/See §200.3*
NOTE: Students who have received credit for INMS 431 may not take this course for credit.

JAZZ 402 ***Jazz Arranging III*** (3 credits)
Prerequisite: JAZZ 401. The study of advanced techniques in jazz arranging.
NOTE A/See §200.3
NOTE: Students who have received credit for INMS 432 may not take this course for credit.

JAZZ 405 ***Jazz Composition II*** (6 credits)
Prerequisite: JAZZ 305. A continuation of JAZZ 305. *NOTE A/See §200.3*
NOTE: Students who have received credit for CMUS 430 may not take this course for credit.

JAZZ 471** ***Independent Study I*** (3 credits)
Prerequisite: Second-year standing*, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, that focuses on an area of jazz studies. *NOTE C/See §200.3*
**66 or fewer credits remaining in degree programme.*
***Students may count a maximum of nine credits in independent studies towards their degree programme.*

JAZZ 472** ***Independent Study II*** (3 credits)
Prerequisite: JAZZ 471, second-year standing*, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, that focuses on an area of jazz studies. *NOTE C/See §200.3*
**66 or fewer credits remaining in degree programme.*
***Students may count a maximum of nine credits in independent studies towards their degree programme.*

JAZZ 498 ***Special Topics in Jazz Studies*** (3 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

JAZZ 499 ***Special Topics in Jazz Studies*** (6 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

Jazz Performance:

JPER 220 ***Jazz Ensemble I*** (6 credits)
Prerequisite: JAZZ 200 concurrently or exemption, and written permission of the Department

of Music. A performance course in which students participate in various Concordia jazz ensembles. *NOTE A/See §200.3*
NOTE: Students are required to participate in public performances.
NOTE: Students who have received credit for CMUS 300 may not take this course for credit.

JPER 321 ***Jazz Ensemble II*** (3 credits)
Prerequisite: JPER 220. A continuation of JPER 220. *NOTE A/See §200.3*
NOTE: This is a full-year course.
NOTE: Students are required to participate in public performances.
NOTE: Students who have received credit for CMUS 401 may not take this course for credit.

JPER 330 ***Jazz Improvisation I*** (6 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music after audition. A performance-analysis course that examines the craft of jazz improvisation. A broad spectrum of jazz improvisational styles is examined. Participation in public performance is required.
NOTE: Students who have received credit for MPER 330 may not take this course for credit.

JPER 341 ***Jazz Vocal Repertoire I*** (3 credits)
Prerequisite: JAZZ 200 or exemption; MUSI 231 or 331 in voice; and written permission of the Department of Music. A study of jazz vocal technique through performance of representative compositions and arrangements, and study of professional recordings illustrative of various jazz vocal styles. Special focus is on performance styles as they relate to building audience-performer relationships. Students are expected to participate in public performances.
NOTE: Students who have received credit for this topic under an MPER 498 number may not take this course for credit.

JPER 398 ***Special Topics in Jazz Performance*** (3 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An study of a selected area not available in other courses in jazz performance.

JPER 399 ***Special Topics in Jazz Performance*** (6 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A study of a selected area not available in other courses in jazz performance.

JPER 421 ***Jazz Ensemble III*** (3 credits)
Prerequisite: JPER 321. A continuation of JPER 321. *NOTE A/See §200.3*
NOTE: This is a full-year course.
NOTE: Students are required to participate in public performances.
NOTE: Students who have received credit for CMUS 402 may not take this course for credit.

JPER 422 ***Jazz Ensemble IV*** (3 credits)
Prerequisite: JPER 421. A continuation of JPER 421. *NOTE A/See §200.3*
NOTE: This is a full-year course.
NOTE: Students are required to participate in public performances.

JPER 430 ***Jazz Improvisation II*** (6 credits)
Prerequisite: JPER 330. A continuation of JPER 330.
NOTE: Students who have received credit for MPER 430 may not take this course for credit.

JPER 441 ***Jazz Vocal Repertoire II*** (3 credits)
Prerequisite: JPER 341. A continuation of JPER 341.
NOTE: Students who have received credit for this topic under an MPER 498 number may not take this course for credit.

JPER 471** ***Independent Study I*** (3 credits)
Prerequisite: Second-year standing* or equivalent, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, on an area of jazz performance practice. When appropriate, the study may include a performance.
**66 or fewer credits remaining in degree programme.*
***Students may count a maximum of nine credits in independent studies towards their degree programme.*

JPER 472* ***Independent Study II*** (3 credits)
Prerequisite: JPER 471 and written permission of the Department of Music. A student repeating JPER 471 registers for JPER 472 for credit.
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

JPER 498 ***Special Topics in Jazz Performance*** (3 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced study of a selected area not available in other courses in jazz performance.

JPER 499 ***Special Topics in Jazz Performance*** (6 credits)
Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced study of a selected area not available in other courses in jazz performance.

Music History:

MHIS 200 ***Music History and Society*** (6 credits)
A survey of musical styles in their social context, from pre-history to the present day. While emphasis is on the mainstream of the Western tradition, attention is also given to folk, popular, and jazz styles, as well as to the music of other cultures. *NOTE A/See §200.3*

MHIS 302 ***Music of the Baroque*** (3 credits)
Prerequisite: MHIS 200; INMS 350; or exemptions. Representative works from the early seventeenth to the mid-eighteenth century. The evolution of "common practice" is traced in the forms, styles, and performance practices of the great masters and schools.

MHIS 303 ***Classical History*** (3 credits)
Prerequisite: MHIS 200; INMS 350; or exemptions. Representative works from the ages of Haydn, Mozart, and Beethoven. Styles, forms, and performance practices are examined within the context of eighteenth-century social and cultural developments.

MHIS 304 ***Romanticism in Music*** (3 credits)
Prerequisite: MHIS 200; INMS 350; or exemptions. Representative works from the late eighteenth to early twentieth century. Styles and performance practices are studied as expressions of the romantic consciousness.

MHIS 305 ***Music in the Twentieth Century*** (3 credits)
Prerequisite: MHIS 200; INMS 350; or exemptions. Selected areas or movements in twentieth-century music. Topics for consideration include the work of major composers, national schools, stylistic schools, and contemporary thought on music.

MHIS 311 ***Medieval Music History*** (3 credits)
Prerequisite: MHIS 200; INMS 350; or exemptions. The development of basic patterns of Western music is traced in reference to the historical and cultural forces of the Middle Ages.
NOTE A/See §200.3

MHIS 312 ***Renaissance Music*** (3 credits)
Prerequisite: MHIS 200; INMS 350; or exemptions. Musical styles from the mid-fifteenth to the early seventeenth century are examined in the context of the cultural changes which shaped the humanistic age. *NOTE A/See §200.3*

MHIS 314 ***Jazz History*** (3 credits)
Prerequisite: MHIS 200; INMS 350; or exemptions. A study of the historical developments and the personalities that contributed to the evolution of jazz styles.

MHIS 471* ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of music history and/or related disciplines, and involves consultation with an adviser.
NOTE C/See §200.3
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

MHIS 472* ***Independent Study II*** (3 credits)
Prerequisite: Written permission of the Department of Music. A student repeating MHIS 471 registers for MHIS 472 for credit.
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

MHIS 498 ***Special Topics in Music History*** (3 credits)
Prerequisite: Twelve credits in Music and written permission of the Department of Music. A study of a selected period, area, or contribution. In a given year, the study may examine any significant aspect of Western, non-Western, or other musics.
NOTE C/See §200.3

Music in Education:

MINE 301 ***Music for Classroom Use I*** (3 credits)
Prerequisite: Enrolment in the Specialization in Early Childhood Education, Major in Child Studies, or written permission of the Department of Music. This course is designed to give the student a working knowledge of contemporary techniques of group instruction in music. At least one established or experimental method is covered in some depth: for example, Orff, Kodaly, Dalcroze, Martentot, Schafer, Dennis. While the main emphasis is on the cultivation of musicality in the preschool and elementary school child, the implications for music education in general are also explored. Classroom work includes opportunities for demonstration and practice teaching.
NOTE A/See §200.3

Music Performance Studies:

MPER 201 ***Orchestra I*** (3 credits)
Prerequisite: Written permission of the Department of Music. Students enrolled in this course participate in the Concordia Orchestra.
NOTE: This is a full-year course.

MPER 231 ***Choir I*** (3 credits)
Prerequisite: Written permission of the Department of Music. Students enrolled in this course participate in a Concordia choir.
NOTE A/See §200.3
NOTE: This is a full-year course.
NOTE: Students who have received credit for MPER 221 may not take this course for credit.

MPER 301 ***Orchestra II*** (3 credits)
Prerequisite: MPER 201 and written permission of the Department of Music. A continuation of MPER 201.
NOTE A/See §200.3
NOTE: This is a full-year course.
NOTE: Students who have received credit for this course as MPER 498 or MPER 300 may not take this course for credit.

MPER 321 ***Chamber Ensemble I*** (3 credits)
Prerequisite: Written permission of the Department of Music. A study, through performance, of selected works from a broad range of repertoires. The works studied are determined by class needs and the particular skills of each student. Participation in public performances is required.
NOTE A/See §200.3
NOTE: This is a full-year course.

MPER 322 ***Chamber Ensemble II*** (3 credits)
Prerequisite: MPER 321 and written permission of the Department of Music. A continuation of MPER 321. *NOTE A/See §200.3*
NOTE: This is a full-year course.

MPER 331 ***Classical Vocal Repertoire I*** (3 credits)
Prerequisite: MUSI 200 or exemption; MUSI 231 in voice previously or concurrently; and written permission of the Department of Music. A chronological study of the repertoire available to the solo singer. Vocal repertoire from the late Renaissance to the present is examined and performed by students. This seminar/workshop is based on a bibliography of selected readings, covering such topics as stylistic features, treatment of poetry and text, recital preparation, programming, vocal ornamentation, and recitative.
NOTE: This is a full-year course.
NOTE: Students who have received credit for this topic under an MPER 498 number may not take this course for credit.

MPER 332 ***Choir II*** (3 credits)
Prerequisite: MPER 231 and written permission of the Department of Music. A continuation of MPER 231. *NOTE A/See §200.3*
NOTE: This is a full-year course.
NOTE: Students who have received credit for this course as MPER 498 or MPER 420 may not take this course for credit.

MPER 370 ***Musical Performance Skills I*** (6 credits)
Prerequisite: Written permission of the Department of Music. A seminar/workshop on specific problems in learning, teaching, and developing musical performance skills. Included is the analysis and organization of practice technique, reading, memory, performance practices, style, interpretation, accompaniment, and recital preparation. Particular attention is given to the integration of skill with musical understanding.
NOTE A/See §200.3

MPER 390 ***Advanced Private Study I*** (6 credits)
Prerequisite: Enrolment in the Specialization in Music Performance Studies, and written permission of the Department of Music. This course offers intensive vocal or instrumental instruction for students specializing in performance. A juried examination is required.
NOTE A/See §200.3
NOTE: Students are required to bear part of the cost of private lessons.

MPER 398 ***Special Topics in Music Performance*** (3 credits)
Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in music performance.

MPER 399 ***Special Topics in Music Performance*** (6 credits)
Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in music performance.

MPER 401 ***Orchestra III*** (3 credits)
Prerequisite: MPER 301 and written permission of the Department of Music. A continuation of MPER 301. *NOTE A/See §200.3*
NOTE: This is a full-year course.
NOTE: Students who have received credit for this course as MPER 498 or MPER 400 may not take this course for credit.

MPER 421 ***Chamber Ensemble III*** (3 credits)
Prerequisite: MPER 322 and written permission of the Department of Music. A continuation of MPER 322. *NOTE A/See §200.3*
NOTE: This is a full-year course.

MPER 422 ***Chamber Ensemble IV*** (3 credits)
Prerequisite: MPER 421 and written permission of the Department of Music. A continuation of MPER 421. *NOTE A/See §200.3*
NOTE: This is a full-year course.

MPER 431 ***Classical Vocal Repertoire II*** (3 credits)
Prerequisite: MPER 331 and written permission of the Department of Music. A continuation of MPER 331.
NOTE: This is a full-year course.
NOTE: Students who have received credit for this topic under an MPER 498 number may not take this course for credit.

MPER 432 ***Choir III*** (3 credits)
Prerequisite: MPER 331 and written permission of the Department of Music. A continuation of MPER 331. *NOTE A/See §200.3*
NOTE: This is a full-year course.
NOTE: Students who have received credit for this course as MPER 498 or MPER 420 may not take this course for credit.

MPER 441 ***Performance Practice/ Documentation*** (3 credits)
Prerequisite: Written permission of the Department of Music. A study of historical sources applied directly to performance. Topics

covered include ornamentation, improvisation, figured bass, "The Doctrine of the Affections", early notation, and bibliography.

MPER 442 ***Performance Practice/ Documentation*** (3 credits)
Prerequisite: MPER 441. A continuation of MPER 441.

MPER 470 ***Musical Performance Skills II*** (6 credits)
Prerequisite: MPER 370 and written permission of the Department of Music. A continuation of MPER 370. *NOTE A/See §200.3*

MPER 471* ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of performance practice, performance theory/analysis, pedagogy, and/or related disciplines, and involves consultation with an adviser. When appropriate, the study may include a demonstration/performance.
NOTE C/See §200.3
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

MPER 472* ***Independent Study II*** (3 credits)
Prerequisite: Written permission of the Department of Music. A student repeating MPER 471 registers for MPER 472 for credit.
**Students may count a maximum of nine credits in independent studies towards their degree programme.*

MPER 490 ***Advanced Private Study II*** (6 credits)
Prerequisite: MUSI 330 or MPER 390, enrolment in the Specialization in Music Performance Studies, and written permission of the Department of Music. A continuation of MPER 390. An approved public recital may be substituted for the juried examination.
NOTE A/See §200.3
NOTE: Students are required to bear part of the cost of private lessons.

MPER 498 ***Special Topics in Music Performance*** (3 credits)
Prerequisite: Written permission of the Department of Music. A seminar/workshop in performance. Selected problems in the development of performance skills. The areas covered are, whenever possible, determined by the specific interests of the students. Topics in any given year may include technique, practice, style, interpretation, accompaniment, ensemble, teaching children, the adult student.
NOTE A,C/See §200.3

MPER 499 ***Special Topics in Music Performance*** (6 credits)
Prerequisite: Written permission of the Department of Music. A seminar/workshop in performance. Selected problems in the development of performance skills. The areas covered are, whenever possible, determined by the specific interests of the students. Topics, in any given year, may include technique, practice, style, interpretation, accompaniment, ensemble, teaching children, the adult student.
NOTE A,C/See §200.3

81.110 PAINTING AND DRAWING

Faculty

Co-Chairs
LEOPOLD PLOTEK, *Associate Professor*
MARION WAGSCHAL, *Associate Professor*

Professors
YVES GAUCHER
GUIDO MOLINARI
ALFRED PINSKY

Associate Professors
MERVIN DEWES
JOHN FOX
RUSSELL GORDON
LYNN HUGHES
DAVID MOORE
IRENE WHITTOME

Assistant Professor
CAROL WAINIO

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 238
(514) 848-4676

Department Objectives

The Department of Painting and Drawing provides an in-depth programme in Painting and Drawing, combining theoretical, historical, and practical study at all undergraduate levels. The aim is to provide students with a broad foundation on which they can base their own creative contributions.
Studio courses, seminars, and independent projects on such varied topics as open media, collage, and women's studies, supplement the core courses on painting and drawing at all levels.
Recognizing the importance of providing basic skills and knowledge, in an atmosphere of freedom, the programme is supported by a large number of faculty and guest artists, exposing students to a full range of approaches to drawing and painting.
A graduate programme in Painting and Drawing and Open Media is available for further studies.

Programmes

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.
The superscript indicates credit value.

60 BFA Major in Painting and Drawing
12 DRAW 200[6], 300[6]
12 PTNG 200[6], 300[6]
12 Chosen from ART 320[6], 420[6]; DRAW 420[6]; PTNG 420[6]
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser
6 ARTH 366[3] and 367[3]
6 Studio Art elective selected from outside the Department of Painting and Drawing
6 Chosen from ART 261[6], 460[6] or Art History electives (excluding ARTH 433[6], 434[6]), in consultation with an adviser

60 BFA Major in Studio Art
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser
6 Chosen from ART 261[6], 460[6]; SCUL 465[6] or Art History electives
6 DRAW 200[6]
6 Art History electives
24 Studio Art electives*
12 300 and 400 level in a single medium from one of the following Departments: Painting and Drawing; Printmaking and Photography; Sculpture, Ceramics and Fibres

**Studio Art courses offered by the Department of Design Art and the Department of Art Education and Art Therapy may be selected as Studio Art electives, but these credits do not satisfy the 300- and 400-level sequence requirements.*

60 BFA Major in Art History and Studio Art
6 ARTH 284[6] to be taken as first six credits in studies in Art History
6 Chosen from ARTH 433[6], 434[6] or Studio Art elective
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser
24 Art History electives*
18 Studio Art electives chosen from studio courses offered by Departments of: Design Art; Painting and Drawing; Printmaking and Photography; Sculpture, Ceramics and Fibres

**ART 460 may be substituted for six credits in Art History.*

30 Minor in Art History and Studio Art

6 ARTH 284[6] to be taken as first six credits in studies in Art History

6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser

6-12 Art History electives

6-12 Studio Art electives

81.110.1 Admission to the Major in Studio Art and the Major or Minor in Art History and Studio Art

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Studio Art and the Major or Minor in Art History and Studio Art.

All applicants must submit a *portfolio* of their own work, as well as a *letter of intent* as part of the admission process. In addition to recommending admission to a programme, the Portfolio Evaluation Committee may recommend the completion of either SFAR 250, 260, or 270 as part of a student's programme.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works *larger than 20 x 24 inches (50 x 60 centimetres)* and three-dimensional works must be submitted in slide form.
6. Portfolios should include a copy of recent academic record.
7. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
8. Out-of-town applicants may submit photographs and/or slides of their work. Return shipment of out-of-town portfolios is by prior arrangement only.

Applicants must submit this portfolio to the Portfolio Evaluation Committee, Visual Arts Building, Room 237, prior to the deadline of Friday, March 15, 1996 (12:00 PM/noon). For more detailed information regarding admission to the Major in Studio Art, applicants should contact one of the Studio Art Departments.

81.110.2 Admission to the Major in Painting and Drawing

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Painting and Drawing.

All applicants must also submit a *portfolio* — please see §81.110.1, items 1 to 8, for portfolio requirements.

Additional requirements for the Major in Painting and Drawing are:

9. Portfolios must be accompanied by a *letter of intent* explaining the applicant's special interests in painting and drawing.

Applicants must bring both their portfolios and their letters of intent to the Department of Painting and Drawing, Visual arts Building, Room 238, prior to the deadline of Friday, March 15, 1996 (12:00 PM/noon). For more detailed information regarding admission to the Major in Painting and Drawing, applicants should contact the departmental office.

Courses

NOTE: Students are required to bear the cost of materials in Studio Art courses.

Art:

ART 261 ***Aesthetic Inquiry in Visual Arts*** (6 credits)

Prerequisite: Enrolment in a BFA programme or written permission of the Department of Painting and Drawing. A seminar addressing the principles and theories relating to the objects and events of visual arts. Topics include the artistic process as expression, intuition, and imagination. Further consideration is given to the products of painting, sculpture, and graphics, emphasizing various contemporary critical and theoretical stances. *NOTE A/See §200.3*

ART 320 ***Studio/Seminar in Painting and Drawing*** (6 credits)

Prerequisite: DRAW 200; PTNG 200; ART 261 or written permission of the Department of Painting and Drawing. A combination studio/seminar in which advanced ideas in painting and drawing are addressed. Special topics of approximately one month duration are presented by guest artists from within and outside the Faculty.

ART 417 ***Open Media*** (6 credits)

Prerequisite: Thirty credits in Studio Art; 400-level studio courses concurrently; or written permission of the Department of Painting and Drawing. A seminar encompassing an unlimited range and combination of materials.* The varied nature of this approach invites students to provide their own circumstances for creating work. *NOTE A/See §200.3*

**Students are required to bear the cost of materials and, when loan arrangements cannot be made through the University, equipment rental.*

ART 420 ***Materials and Methods of the Artist*** (6 credits)
Prerequisite: DRAW 300; PTNG 300 or written permission of the Department of Painting and Drawing. Through a series of special projects in the media of drawing and painting, this course familiarizes the student with some of the historical materials, techniques, and other aspects of the artist's concerns.
NOTE: Students who have credit for ART 234 or ARTH 267 or 434 may not take this course for credit.

ART 460 ***Analysis of Great Works of Art*** (6 credits)
A course in art principles. Through the formal analysis of selected masterpieces of painting and sculpture, the student is led to a fuller comprehension of the nature of formal order in the arts. *NOTE A/See §200.3*

Painting:

PTNG 200 ***Painting I*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission of the Department of Painting and Drawing. An exploration of painting, colour, style, image, visual skills, and the technology of painting materials. *NOTE A/See §200.3*

PTNG 300 ***Painting II*** (6 credits)
Prerequisite: PTNG 200. A course in which various media and forms of expression are explored at the more advanced level.
NOTE A/See §200.3

PTNG 400 ***Painting III*** (6 credits)
Prerequisite: PTNG 300. A continuation of PTNG 300. *NOTE A/See §200.3*

PTNG 420 ***Seminar/Workshop in Painting*** (6 credits)
Prerequisite: ART 320 or written permission of the Department of Painting and Drawing. An advanced studio in painting having its principal emphasis in studio practice, but developing further the theoretical concepts introduced in ART 320. *NOTE A/See §200.3*

PTNG 430 ***Women and Painting*** (6 credits)
Prerequisite: Written permission of the Department of Painting and Drawing. A studio/seminar course in which students are encouraged to explore their world in painting and consider their practice from the point of view of women's experience, individually and collectively. *NOTE A/See §200.3*

PTNG 440 ***Collage*** (6 credits)
Prerequisite: Written permission of the Department of Painting and Drawing. An exploration of collage as a means of expression evolving from the historical and artistic traditions of painting and drawing.
NOTE A/See §200.3

PTNG 450 ***Advanced Studio in Painting*** (6 credits)
Prerequisite: PTNG 400. A continuation of PTNG 400. *NOTE A/See §200.3*

PTNG 470 ***Independent Study*** (6 credits)
Prerequisite: PTNG 420 previously or concurrently, or written permission of the Department of Painting and Drawing. A course of independent study in which the advanced student explores a specific area in painting.
NOTE A/See §200.3

PTNG 498 ***Special Topics in Painting*** (3 credits)
Prerequisite: Third-year standing* and written permission of the Department of Painting and Drawing. A course for advanced students which provides an opportunity for the study of more specialized areas in painting.
NOTE C/See §200.3
**fewer than 33 credits remaining in degree programme.*

PTNG 499 ***Special Topics in Painting*** (6 credits)
Prerequisite: Third-year standing* and written permission of the Department of Painting and Drawing. A course for advanced students which provides an opportunity for the study of more specialized areas in painting.
NOTE C/See §200.3
**fewer than 33 credits remaining in degree programme.*

Drawing:

DRAW 200 ***Drawing I*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission of the Department of Painting and Drawing. An exploration of drawing as a means of expression. Various media are employed to examine and express form, space, figurative, and other graphic images. Drawing from observation, imagination, and memory is included. *NOTE A/See §200.3*

DRAW 300 ***Drawing II*** (6 credits)
Prerequisite: DRAW 200. A drawing course in which various media and forms of expression are explored at the more advanced level. Lectures and studio periods.
NOTE A/See §200.3

DRAW 400 ***Drawing III*** (6 credits)
Prerequisite: DRAW 300. Continuation of DRAW 300. *NOTE A/See §200.3*

DRAW 420 ***Seminar/Workshop in Drawing*** (6 credits)
Prerequisite: ART 320 or written permission of the Department of Painting and Drawing. An advanced studio in drawing having its principal emphasis in studio practice, but developing further the theoretical concepts introduced in ART 320.

DRAW 450 ***Advanced Studio in Drawing*** (6 credits)
Prerequisite: DRAW 400. A continuation of DRAW 400.

DRAW 470 ***Independent Study*** (6 credits)
Prerequisite: DRAW 420 previously or concurrently, or written permission of the Department of Painting and Drawing. A course of independent study in which the advanced student explores a specific area of drawing.
NOTE A/See §200.3

DRAW 498 ***Special Topics in Drawing*** (3 credits)
Prerequisite: Third-year standing* and written permission of the Department of Painting and Drawing. A course for advanced students which provides an opportunity for the study of more specialized areas in drawing.
NOTE C/See §200.3
**fewer than 33 credits remaining in degree programme.*

DRAW 499 ***Special Topics in Drawing*** (6 credits)
Prerequisite: Third-year standing* and written permission of the Department of Painting and Drawing. A course for advanced students which provides an opportunity for the study of more specialized areas in drawing.
NOTE C/See §200.3
**fewer than 33 credits remaining in degree programme.*

The following courses are electives in the BFA Major in Painting and Drawing, Major Studio Art, Major in Art History and Studio Art, and Minor in Art History and Studio Art:

Studio Fine Arts:

SFAR 250 ***Visual Language as Content*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course focusing on visual language as content. Colour and its permutations, line, shape, pattern, texture, and composition are the personal vocabulary of each artist. The claiming of this language is central to an art practice; it will be established through two- and three-dimensional projects which challenge students to explore their capacity to visually articulate their complexity as beings in nature and culture.

SFAR 260 ***Integrated Drawing: Intersections*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which embraces various attitudes towards drawing. As an alternative approach, students experience the medium from the different perspectives of various disciplines. The course will explore the possibilities of non-traditional materials and strategies for producing drawings. Analogue (narrative) and notation, as well as the notion of aesthetic and non-aesthetic uses of drawing (such as mapping, charting, making diagrams, documenting) will be investigated.

SFAR 270 ***Extended Studio Practices*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which introduces the diversity of contemporary art practice and theory. Alternative venues, interactive art forms, questions of authorship, the significance of the object/artifact, and perceptions other than visual are among the subjects to be explored.

81.120 PRINTMAKING AND PHOTOGRAPHY

Faculty

Co-Chairs
CHERYL DUDEK, *Associate Professor*
MARK RUWEDEL, *Associate Professor*

Associate Professors
PENELOPE COUSINEAU
JUDY GARFIN
THOMAS GIBSON
DENNIS JONES
JUDY KELLY
KATHERINE TWEEDIE
BARRY WAINWRIGHT

Assistant Professor
RAYMONDE APRIL

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 248
(514) 848-4678

Department Objectives

The Printmaking programme focuses on the language of printmaking as a context for the exploration of aesthetic issues in visual art. The medium of printmaking shares with other studio arts the historical, theoretical and analytical concerns of making imagery in contemporary society. Through an emphasis on studio practice, the tradition of printmaking as visual language is rendered new by the relevance of contemporary as well as personal imagery. The curriculum integrates a thorough knowledge of technical processes and studio practice with the demands of exploratory and experimental imagery.

The Photography programme acknowledges photography as a discipline with a distinct artistic and historical identity. It also recognizes that contemporary photographic practice encompasses a rich multiplicity of formal and conceptual approaches. The course structure of the programme and the orientation of its faculty reflect a concern that the students receive a strong historical and theoretical comprehension of the medium. The programme stresses the need for students to acquire the concepts and vocabulary necessary for critical discussion of their own photographic work and that of others. Emphasis is placed on the understanding of photography's sociological and artistic ramifications.

Programmes

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.
The superscript indicates credit value.

66 BFA Major in Printmaking
12-18 PRIN 210[6], 220[6], 230[6], 240[6]
18-24 Printmaking electives
6 DRAW 200[6] or a Studio Art elective chosen in consultation with an adviser
3 ARTH 263[3]
3 ARTH 349[3]
6 Chosen from SFAR 250[6], 260[6], 270[6] or Studio Art elective, in consultation with an adviser
6 Art History electives*
6 Fine Arts elective

*ART 261[6], ART 460[6]; SCUL 465[6] may be substituted for electives in Art History

60 BFA Major in Photography
30 PHOT 200[6], 250[6], 300[6], 311[3], 321[3], 400[6]
12 Photography electives
6 Art History electives
12 Visual Arts electives

60 BFA Major in Studio Art
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Studio Art elective, in consultation with an adviser
6 Chosen from ART 261[6], 460[6]; SCUL 465[6] or Art History electives
6 DRAW 200[6]
6 Art History electives
24 Studio Art electives*
12 300 and 400 level in a single medium from one of the following Departments: Painting and Drawing; Printmaking and Photography; Sculpture, Ceramics and Fibres

**Studio Art courses offered by the Department of Design Art and the Department of Art Education and Art Therapy may be selected as Studio Art electives, but these credits do not satisfy the 300- and 400-level sequence requirements.*

60 BFA Major in Art History and Studio Art
See §81.60 - Department of Art History or §81.110 - Department of Painting and Drawing.

30 Minor in Photography
12 PHOT 200[6], 250[6]
12 PHOT 300[6], 311[3], 312[3], 321[3], 322[3], 340[6], 398[3], 399[6], 498[3]
6 Photography or another visual arts elective

81.120.1 Admission to Photography

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major and Minor in Photography. Applicants must submit a *portfolio* as well as attend an *interview*. The applicants must contact the Department of Printmaking and Photography before Friday, March 15, 1996 (12:00 PM/noon) for particulars regarding portfolio submissions and interviews.

81.120.2 Admission to the Major in Studio Art and the Major and Minor in Art History and Studio Art

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Studio Art and the Major or Minor in Art History and Studio Art.

All applicants must submit a *portfolio* as part of the admission process. In addition to recommending admission to a programme, the Portfolio Evaluation Committee may recommend the completion of either SFAR 250, 260 or 270 as part of a student's programme.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works *larger than 20 x 24 inches (50 x 60 centimetres)* and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Return shipment of out-of-town portfolios is by prior arrangement only.

Applicants must submit this portfolio to the Portfolio Evaluation Committee, Visual Arts Building, Room 237, prior to the deadline of Friday, March 15, 1996 (12:00 PM/noon). For more detailed information regarding admission to the Major in Studio Art, applicants should contact one of the Studio Art Departments.

81.120.3 Admission to Printmaking

Applicants to Printmaking may apply to enter directly into the Major in Printmaking or may enter the Major in Studio Art with the intention of transferring upon completion of the first year. In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to Printmaking.

All applicants must also submit a portfolio — please see §81.120.2, items 1 to 7, for portfolio requirements. In addition, for the Major in Printmaking:

8. Portfolios must contain a minimum of 10 works in drawing and/or prints.
9. Portfolios must be submitted to the Department Office before the deadline date of Friday, March 15, 1996 (12:00 PM/noon).

It is recommended that full-time students in Studio Art who plan to apply for transfer to the Major in Printmaking register for 12 credits in printmaking courses in their first 30 credits. Upon completion of the first year (less than 66 credits remaining), students apply for transfer through the Department of Printmaking and Photography. Acceptance into the Major is based on accomplishment and potential in printmaking and on the student's academic performance at Concordia and especially on the portfolio.

Courses

NOTE: Students are required to bear the cost of materials in Studio Art courses.

Art:

For course descriptions, please see §81.110 - Department of Painting and Drawing.

Printmaking:

PRIN 210 ***Intaglio I*** (6 credits)
Prerequisite: Enrolment in the Major in Printmaking or enrolment in a Major or Specialization in a Studio Art Department or Art Education, or written permission of the Department of Printmaking and Photography. A study of the basic principles of traditional and contemporary techniques in intaglio printing, including drypoint, aquatint, hard ground and soft ground etching, black and white and colour processes.
NOTE A/See §200.3

PRIN 220 ***Lithography I*** (6 credits)
Prerequisite: Enrolment in the Major in Printmaking or enrolment in a Major or Specialization in a Studio Art Department or Art Education, or written permission of the Department of Printmaking and Photography. A study of the basic principles of traditional and contemporary techniques in stone and plate lithography. *NOTE A/See §200.3*

PRIN 230 ***Serigraphy I*** (6 credits)
Prerequisite: Enrolment in the Major in

Printmaking or enrolment in a Major or Specialization in a Studio Art Department or Art Education, or written permission of the Department of Printmaking and Photography. A study of the basic principles of screen printing, including direct techniques, photo-screen, and cut film. *NOTE A/See §200.3*

PRIN 240 ***Relief Processes I*** (6 credits)
Prerequisite: Enrolment in the Major in Printmaking or enrolment in a Major or Specialization in a Studio Art Department or Art Education or written permission of the Department of Printmaking and Photography. A study of the basic principles of traditional and contemporary techniques in relief printing, such as woodcut, linocut, the collagraph, black and white and colour processes.

PRIN 310 ***Intaglio II*** (6 credits)
Prerequisite: PRIN 210. Continuation of PRIN 210. *NOTE A/See §200.3*

PRIN 320 ***Lithography II*** (6 credits)
Prerequisite: PRIN 220. Continuation of PRIN 220. *NOTE A/See §200.3*

PRIN 330 ***Serigraphy II*** (6 credits)
Prerequisite: PRIN 230. Continuation of PRIN 230. *NOTE A/See §200.3*

PRIN 340 ***Relief Processes II*** (6 credits)
Prerequisite: PRIN 240. Continuation of PRIN 240.

PRIN 410 ***Intaglio III*** (6 credits)
Prerequisite: PRIN 310. Advanced intaglio techniques.

PRIN 420 ***Lithography III*** (6 credits)
Prerequisite: PRIN 320. Advanced lithographic techniques.

PRIN 430 ***Serigraphy III*** (6 credits)
Prerequisite: PRIN 330. Advanced screen printing.

PRIN 440 ***Relief Processes III*** (6 credits)
Prerequisite: PRIN 340. Continuation of PRIN 340.

PRIN 450 ***The Print in Books, Portfolios and Other Containers*** (6 credits)
Prerequisite: PRIN 310 or 320 or 330, previously or concurrently, and 18 credits in Studio Art. The study and application of the print as used in books, portfolios, and other containers. Emphasis is placed on the print image (intaglio, relief, serigraphy, and lithography) and its relationship to type layout and book and portfolio design.

PRIN 460 ***The Monoprint*** (6 credits)
Prerequisite: Third-year standing* and written permission of the Department. A studio course for advanced students which provides an opportunity for further aesthetic investigation using the principles of printmaking.
**fewer than 33 credits remaining in degree programme.*

PRIN 470 ***Independent Study in Printmaking*** (6 credits)
Prerequisite: Third-year standing* and written permission of the Department. A course of independent study in which the advanced student explores a specific area of printmaking. *NOTE A/See §200.3*
**fewer than 33 credits remaining in degree programme.*

PRIN 498 ***Special Topics in Printmaking*** (3 credits)
Prerequisite: Third-year standing* and written permission of the Department. A course for advanced students which provides the opportunity for the study of more specialized areas of printmaking. *NOTE C/See §200.3*
**fewer than 33 credits remaining in degree programme.*

PRIN 499 ***Special Topics in Printmaking*** (6 credits)
Prerequisite: Third-year standing* and written permission of the Department. A course for advanced students which provides the opportunity for the study of more specialized areas of printmaking. *NOTE C/See §200.3*
**fewer than 33 credits remaining in degree programme.*

Photography

PHOT 200 ***Foundations in Photographic Vision: Theory and Practice I*** (6 credits)
Prerequisite: Enrolment in the Major or Minor in Photography or second-year standing* in a Specialization/Major in the Faculty of Fine Arts**. An exploration of the aesthetics of photography through the rapid accumulation of images in the field and through the study of contact sheets and prints in the studio. Emphasis is placed upon developing an ability to see photographically. Technical procedures, including optical functions and the camera, photographic chemistry, film and paper processing are taught. *NOTE A/See §200.3*
**fewer than 66 credits remaining in degree programme.*
***Students enrolled in a Specialization/Major in Performing Arts or the Major in Interdisciplinary Studies must obtain written permission of the Department.*
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 250 ***Development of Photographic Traditions*** (6 credits)
Prerequisite: Enrolment in the Major or Minor in

Photography, or second-year standing* in a Specialization/Major in the Faculty of Fine Arts, or written permission of the Department. A course tracing the development of photography from its earliest appearance to the present. Issues are dealt with historically and thematically and include ideas about photographs as documents, means of social criticism, forms of personal expression, and sequential imagery. Reference is made to the relationship between photographs and other forms of art, and to the social or political contexts which influenced its development.
**fewer than 66 credits remaining in degree programme.*

PHOT 300 ***Photographic Vision: Theory and Practice II*** (6 credits)
Prerequisite: PHOT 200 and 250 and enrolment in the Major or Minor in Photography, or written permission of the Department. A course in which the student is encouraged to refine and enhance a photographic vision. The course focuses on individual exploration in a context of exchange, discussion, and research. A written proposal in the second semester leads to the completion of a final portfolio.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 311 ***Large Format Photography I*** (3 credits)
Prerequisite: PHOT 200 and 250 and enrolment in the Major or Minor in Photography, or written permission of the Department. A studio course introducing large format photography, its techniques and application. Field trips and demonstrations cover the basics of view camera operation, light metering, sheet film exposure, development, and advanced printing. Assignments based on traditional genres encourage ease with all aspects of large format use and their personal applications.
NOTE: Students who have received credit for PHOT 310 may not take this course for credit.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 312 ***Large Format Photography II*** (3 credits)
Prerequisite: PHOT 200, 250, 311 and enrolment in the Major or Minor in Photography, or written permission of the Department. A studio course directed towards the development of an individual approach to view camera photography. Various uses of advanced techniques are also discussed. Emphasis is put on the development of a coherent portfolio of prints expressing personal concerns.
NOTE: Students who have received credit for PHOT 310 may not take this course for credit.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 321 ***Colour Photography I*** (3 credits)
Prerequisite: PHOT 200 and 250 and enrolment in the Major or Minor in Photography, or written permission of the Department. An introductory studio course investigating the technical and creative aspects of colour photography. Students learn practical methods of colour printing using the positive-negative process and are encouraged to use these techniques in a self-expressive manner. A brief historical survey of colour processes is presented.
NOTE: Students who have received credit for PHOT 320 may not take this course for credit.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 322 ***Colour Photography II*** (3 credits)
Prerequisite: PHOT 200, 250, 321 and enrolment in the Major or Minor in Photography, or written permission of the Department. A continuation of PHOT 320, this course explores further techniques in colour photography and advanced colour printing. Aesthetic issues such as changing attitudes towards the colour medium and its role in documentary work are discussed. A final portfolio reflects the students' personal approach to colour photography.
NOTE: Students who have received credit for PHOT 320 may not take this course for credit.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 340 ***Contemporary Issues in Photography*** (6 credits)
Prerequisite: Second-year standing and written permission of the Department. A seminar course exploring various theoretical approaches to contemporary photographic practice. Weekly readings will form the basis of discussions, which will be complemented by lectures, guests, visits to exhibitions, and other relevant activities. A variety of critical approaches will be introduced. Students are expected to produce several short essays and complete one major research paper. Required texts will vary from year to year.

PHOT 398 ***Special Topics in Photography*** (3 credits)
Prerequisite: Written permission of the Department. An opportunity for the study of limited and more specialized aspects of photography. *NOTE C/See §200.3*

PHOT 399 ***Special Topics in Photography*** (6 credits)
Prerequisite: Written permission of the Department. An opportunity for the study of limited and more specialized aspects of photography. *NOTE C/See §200.3*

PHOT 400 ***Advanced Workshop in Photography*** (6 credits)
Prerequisite: Third-year standing* in the Major

in Photography or written permission of the Department. A studio course in which students pursue one or more extended photographic projects in black and white and/or colour. Topics related to contemporary photography are presented in a seminar fashion.
NOTE: Each student's personal work is evaluated by a jury of photography faculty twice during the year.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.
**fewer than 33 credits remaining in degree programme.*

PHOT 470 ***Professional Internship*** (6 credits)
Prerequisite: Third-year standing* in the Major in Photography and written permission of the Department. A student wishing to work in an apprentice capacity with an established photographic artist, or who would like to pursue research in photographic criticism, museum work, publication, or other related endeavours may apply for academic credit. The internship will be carried out under the joint supervision of a qualified professional (from within or without the University) and a full-time Photography faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the internship is undertaken. This agreement should state clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.
**fewer than 33 credits remaining in degree programme.*

PHOT 481 ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department. A course of independent study in which the student explores a specific area of photography.

PHOT 482 ***Independent Study II*** (3 credits)
Prerequisite: PHOT 481 and written permission of the Department. A student repeating PHOT 481 registers for credit under PHOT 482.

PHOT 498 ***Special Topics in Photography*** (3 credits)
Prerequisite: Written permission of the Department. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of photography.

PHOT 499 ***Special Topics in Photography*** (6 credits)
Prerequisite: Written permission of the Department. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of photography.

The following courses are electives in the BFA Major in Printmaking and Major in Studio Art:

Studio Fine Arts:

SFAR 250 ***Visual Language as Content*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course focusing on visual language as content. Colour and its permutations, line, shape, pattern, texture, and composition are the personal vocabulary of each artist. The claiming of this language is central to an art practice; it will be established through two- and three-dimensional projects which challenge students to explore their capacity to visually articulate their complexity as beings in nature and culture.

SFAR 260 ***Integrated Drawing: Intersections*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which embraces various attitudes towards drawing. As an alternative approach, students experience the medium from the different perspectives of various disciplines. The course will explore the possibilities of non-traditional materials and strategies for producing drawings. Analogue (narrative) and notation, as well as the notion of aesthetic and non-aesthetic uses of drawing (such as mapping, charting, making diagrams, documenting) will be investigated.

SFAR 270 ***Extended Studio Practices*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which introduces the diversity of contemporary art practice and theory. Alternative venues, interactive art forms, questions of authorship, the significance of the object/artifact, and perceptions other than visual are among the subjects to be explored.

81.130 SCULPTURE, CERAMICS AND FIBRES

Faculty

Chair
ANDREW DUTKEWYCH, *Associate Professor*

Associate Professors
THÉRÈSE CHABOT
TREVOR GOULD
DANICA JOJICH
WOLFGANG KROL
BARBARA LAYNE

Assistant Professor
GISELE AMANTEA

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 262
(514) 848-4615

Department Objectives

The Department of Sculpture, Ceramics and Fibres offers the opportunity for intensive study, both practical and theoretical, of the art and technology of sculpture, ceramics and fibres. Within the Fine Arts curriculum, these courses help students to explore the relationship of object, surface and space. Such creative investigation, allied with technical proficiency, provides the base students need to develop as young artists.
Courses are available at all levels, ranging from beginner classes to independent study for advanced students wishing to focus on a single project. To enrich their artistic training, students concentrating in other areas of Fine Arts may also take most courses offered by the Department.

Programmes

Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20.
The superscript indicates credit value.

60 BFA Major in Ceramics

30 CERA 230^6, 330^6, 430^6; SCUL 465^6; DRAW 200^6
6 ARTH 264^3, 350^3
6 Art History electives*
6 SCUL 200^6; FBRS 240^6, 260^6, 470^6
6 Electives from the Department of Sculpture, Ceramics and Fibres
6 Chosen from SFAR 250^6, 260^6, 270^6 or a Studio Art elective, in consultation with an adviser**

**With permission of the Department, students may substitute ART 261^6 or ART 460^6 for six electives in Art History.*
***Recommended to be taken in the first year.*

60 BFA Major in Fibres

18 FBRS 240^6, 260^6; SCUL 465^6
6 FBRS 340^6 or 360^6
6 FBRS 480^6
6 ARTH 266^3, 352^3
6 Art History electives*
6 SCUL 200^6; DRAW 200^6; CERA 230^6
6 Chosen from SFAR 250^6, 260^6, 270^6 or a Studio Art elective, in consultation with an adviser**
6 Electives from the Department of Sculpture, Ceramics and Fibres

**With permission of the Department, students may substitute ART 261^6 or ART 460^6, for six electives in Art History.*
***Recommended to be taken in the first year.*

60 BFA Major in Sculpture

36 SCUL 200^6, 300^6, 400^6, 465^6, 490^6; DRAW 200^6
12 Art History electives*
6 CERA 230^6; FBRS 240^6, 260^6, 470^6
6 Chosen from SFAR 250^6, 260^6, 270^6 or a Studio Art elective, in consultation with an adviser**

**With permission of the Department, students may substitute ART 261^6 or ART 460^6, for six electives in Art History.*
***Recommended to be taken in the first year.*

60 BFA Major in Studio Art

6 Chosen from SFAR 250^6, 260^6, 270^6 or a Studio Art elective, in consultation with an adviser
6 Chosen from ART 261^6, 460^6; SCUL 465^6 or Art History electives
6 DRAW 200^6
6 Art History electives
24 Studio Art electives*
12 300 and 400 level in a single medium from one of the following Departments: Painting and Drawing; Printmaking and Photography; Sculpture, Ceramics and Fibres

**Studio Art courses offered by the Department of Design Art and the Department of Art Education and Art Therapy may be selected as Studio Art electives, but these credits do not satisfy the 300- and 400-level sequence requirements.*

60 BFA Major in Art History and Studio Art
See §81.60 - Department of Art History or §81.110 - Department of Painting and Drawing.

81.130.1 Admission to the Major in Studio Art and the Major and Minor in Art History and Studio Art

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Studio Art and the Major or Minor in Art History and Studio Art. All applicants must submit a *portfolio* as part of the admission process. In addition to recommending admission to a programme, the Portfolio Evaluation Committee may recommend the completion of either SFAR 250, 260 or 270 as part of a student's programme.

1. Portfolios should consist of a minimum of 20 and maximum of 30 of the applicant's own work.
2. Portfolios should consist of both two-dimensional and three-dimensional work in a variety of mediums.
3. Individual works must be labelled including applicant's name, date, size of work, and medium(s) used.
4. Each portfolio must contain a list of contents including all the above information.
5. Works *larger than 20 x 24 inches (50 x 60 centimetres)* and three-dimensional works must be submitted in slide form.
6. Portfolios should be presented in a sturdy folder; works should be flat and unframed.
7. Out-of-town applicants may submit photographs and/or slides of their work. Return shipment of out-of-town portfolios is by prior arrangement only.

Applicants must submit this portfolio to the Portfolio Evaluation Committee, Visual Arts Building, Room: 237, prior to the deadline of Friday, March 15, 1996 (12:00 PM/noon). For more detailed information regarding admission to the Major in Studio Art, applicants should contact one of the Studio Art Departments.

It is recommended that full-time students who enter the Major in Studio Art and plan to apply for a transfer of Major, register for 18 credits in courses in Ceramics, Fibres and Sculpture in their first 30 credits; these credits to be selected in consultation with an adviser from the Department of Sculpture, Ceramics and Fibres.

Upon completion of the first year, students apply for transfer through the Department of Sculpture, Ceramics and Fibres. Acceptance is based on accomplishment and potential in the area of concentration and the student's academic performance at Concordia.

For more detailed information regarding admission to these programmes, applicants are advised to contact the Department of Sculpture, Ceramics and Fibres.

81.130.2 Admission to Programmes in Ceramics, Fibres or Sculpture

Applicants to Ceramics, Fibres or Sculpture may apply to enter directly into the Major in Ceramics, the Major in Fibres or the Major in Sculpture, or enter the Major in Studio Art with the intention of transferring upon completion of the first year.

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to Ceramics, Fibres or Sculpture.

All applicants must also submit a *portfolio*—please see §81.130.1, items 1 to 7, for portfolio requirements. In addition, for the Major in Ceramics, Fibres or Sculpture:

8. Portfolios must consist of approximately 50% three-dimensional work and include work in the area to which the student is applying.
9. Portfolios must be submitted to the Department Office before the deadline date of Friday, March 15, 1996 (12:00 PM/noon).

Examples of three-dimensional work should include work in at least two mediums, and should demonstrate creative ability. The two-dimensional work should demonstrate an ability to draw, compose, and use colour imaginatively and creatively.

Courses

NOTE: Students are required to bear the cost of materials in Studio Art courses.

Art:

For course descriptions, please see the Department of Painting and Drawing, §81.110.

Ceramics:

CERA 230 ***Ceramics I*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission of the Department of Sculpture, Ceramics and Fibres. An introduction to clay as an art medium employing the various techniques of forming, shaping, and decorating for firing and glazing. *NOTE A/See §200.3*

CERA 330 ***Ceramics II*** (6 credits)
Prerequisite: CERA 230. An advanced course in technical and historical research in various ceramic processes with an emphasis on glazes

and the use of different clay bodies.
NOTE A/See §200.3

CERA 398 ***Special Topics in Ceramics*** (3 credits)
Prerequisite: Third-year standing* and written permission of the Department of Sculpture, Ceramics and Fibres. A workshop/seminar, providing an opportunity for the study of specialized aspects of ceramics.
NOTE C/See §200.3
**fewer than 33 credits remaining in the degree programme.*

CERA 399 ***Special Topics in Ceramics*** (6 credits)
Prerequisite: Written permission of the Department of Sculpture, Ceramics and Fibres. A workshop/seminar course providing an opportunity for the study of specialized aspects in ceramics. *NOTE C/See §200.3*

CERA 430 ***Ceramics III*** (6 credits)
Prerequisite: CERA 330. The development of a body of personal work and a refinement of specific problems in clay.

CERA 450 ***Independent Study*** (6 credits)
Prerequisite: Third-year standing*; CERA 430, previously or concurrently; and written permission of the Department of Sculpture, Ceramics and Fibres. This workshop provides the opportunity for a limited number of students to independently pursue advanced studies in ceramics. *NOTE A/See §200.3*
**fewer than 33 credits remaining in the degree programme.*

Fibres:

FBRS 240 ***Fibre Structures I*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission of the Department of Sculpture, Ceramics and Fibres. An introductory course in which students explore the expressive potential of various materials and processes of fibre structures such as loom weaving, feltmaking, basketry, surface applications, and other experimental constructions.
NOTE A/See §200.3

FBRS 260 ***Textile Printing and Dyeing I*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission of the Department of Sculpture, Ceramics and Fibres. An introductory course in which students explore the creative potential of printing, painting, dyeing, resist work, and construction with fabric.
NOTE A/See §200.3

FBRS 340 ***Fibre Structures II*** (6 credits)
Prerequisite: FBRS 240. An intermediate level course which emphasizes the visual and conceptual development of the student in fibre media. Complex woven structures, painting and dyeing, fibre sculpture, and other experimental approaches are explored.

FBRS 360 ***Textile Printing and Dyeing II*** (6 credits)
Prerequisite: FBRS 260. An intermediate level course in textile printing and dyeing with an emphasis on content. Students investigate traditional and non-traditional approaches such as resist work, discharge, and photo processes.

FBRS 398 ***Special Topics in Fibres*** (3 credits)
Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for study of specialized aspects of fibres. *NOTE C/See §200.3*

FBRS 399 ***Special Topics in Fibres*** (6 credits)
Prerequisite: Written permission of the Department of Sculpture, Ceramics and Fibres. A workshop/seminar course providing an opportunity for the study of specialized aspects in fibres. *NOTE C/See §200.3*

FBRS 450 ***Independent Study*** (6 credits)
Prerequisite: Third-year standing*; FBRS 480, previously or concurrently; and written permission of the Department of Sculpture, Ceramics and Fibres. This workshop provides the opportunity for a limited number of students to independently pursue advanced studies in Fibres.
**fewer than 33 credits remaining in the degree programme.*

FBRS 470 ***Papermaking*** (6 credits)
Prerequisite: Twenty-four credits in Studio Art. The making of paper and its use as a medium of expression. The scope of investigation ranges from surface and image to embossing, casting, and three-dimensional construction.

FBRS 480 ***Advanced Fibres*** (6 credits)
Prerequisite: FBRS 340 or FBRS 360. An advanced level course in which students create a personal body or work, refine technical expertise, and develop a visual and critical language related to fibres and textiles.
NOTE C/See §200.3

Sculpture:

SCUL 200 ***Sculpture I*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission of the Department of Sculpture, Ceramics and Fibres. An investigation into the modes of expression in sculpture through a variety of contemporary and traditional materials and methods including casting, modelling, construction, and welding.
NOTE A/See §200.3

SCUL 300 ***Sculpture II*** (6 credits)
Prerequisite: SCUL 200. Investigation into

materials and methods emphasizing an individual form of study. The development of concepts and their application, imagination, and vocabulary is essential. *NOTE A/See §200.3*

SCUL 398 ***Special Topics in Sculpture*** (3 credits)
Prerequisite: Third-year standing*; written permission of the Department of Sculpture, Ceramics and Fibres. A workshop/seminar course providing an opportunity for the study of specialized aspects of sculpture.
NOTE C/See §200.3
**fewer than 33 credits remaining in the degree programme.*

SCUL 399 ***Special Topics in Sculpture*** (6 credits)
Prerequisite: Written permission of the Department of Sculpture, Ceramics and Fibres. A workshop/seminar course providing an opportunity for the study of specialized aspects in sculpture. *NOTE C/See §200.3*

SCUL 400 ***Sculpture III*** (6 credits)
Prerequisite: SCUL 300. Advanced investigation into a single or group of concepts and materials through the development of a body of personal work. *NOTE A/See §200.3*

SCUL 450 ***Independent Study*** (6 credits)
Prerequisite: Third-year standing*; SCUL 400, previously or concurrently; and written permission of the Department of Sculpture, Ceramics and Fibres. This course provides the opportunity for a limited number of students to pursue advanced studies in sculpture.
NOTE A/See §200.3
**fewer than 33 credits remaining in degree programme.*

SCUL 465 ***Contemporary Practice and Theory in Sculpture*** (6 credits)
Prerequisite: Enrolment in the Major in Sculpture, in Ceramics, or in Fibres; or written permission of the Department of Sculpture, Ceramics and Fibres. A seminar course which looks at recent sculpture practice and theory from an artist's point of view. Readings and lectures will be complemented by visiting artists, visits to exhibitions, presentations, and other related activities.

SCUL 490 ***Advanced Studio Practice*** (6 credits)
Prerequisite: Enrolment in the Major in Sculpture, in Ceramics, or in Fibres; or written permission of the Department of Sculpture, Ceramics and Fibres. A studio course providing an opportunity for the advanced student to work in an intimate context within a studio setting, structured around current topics of theoretical and practical importance.

The following courses are electives in the BFA Major in Ceramics, Major in Fibres, Major in Sculpture, and Major in Studio Art:

Studio Fine Arts:

SFAR 250 ***Visual Language as Content*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course focusing on visual language as content. Colour and its permutations, line, shape, pattern, texture, and composition are the personal vocabulary of each artist. The claiming of this language is central to an art practice; it will be established through two- and three-dimensional projects which challenge students to explore their capacity to visually articulate their complexity as beings in nature and culture.

SFAR 260 ***Integrated Drawing: Intersections*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which embraces various attitudes towards drawing. As an alternative approach, students experience the medium from the different perspectives of various disciplines. The course will explore the possibilities of non-traditional materials and strategies for producing drawings. Analogue (narrative) and notation, as well as the notion of aesthetic and non-aesthetic uses of drawing (such as mapping, charting, making diagrams, documenting) will be investigated.

SFAR 270 ***Extended Studio Practices*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which introduces the diversity of contemporary art practice and theory. Alternative venues, interactive art forms, questions of authorship, the significance of the object/artifact, and perceptions other than visual are among the subjects to be explored.

81.140 THEATRE

Faculty

Chair
ERIC MONGERSON, *Associate Professor*

Professors
GERALD GROSS
PHILIP SPENSLEY

Associate Professors
RALPH ALLISON
GENE GIBBONS
NANCY HELMS
BARBARA MACKAY

Assistant Professors
KIT BRENNAN
KAIRIIN BRIGHT
DEBORAH COTTREAU

Location

Loyola Campus
TJ Building, Room: 102
(514) 848-4747

Department Objectives

The Department of Theatre sets out to prepare students to become theatre designers, researchers, scholars, playwrights, producers, stage managers, and performers. It also helps prepare individuals who wish to focus on the educational, rehabilitative, and therapeutic aspects of theatre. Actual theatrical productions are an important part of the students' education.

Programmes

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.
The superscript indicates credit value.

54 BFA Major in Theatre
21 THEA 240[6], 301[3], 303[3], 304[3], 403[3], 411[3]
6 DFTT 250[6]
6 TPER 200[6] or 211[3] and 212[3]
6 PROD 311[3], 312[3]
15 Electives from the Department of Theatre

66 BFA Specialization in Design for the Theatre: Conception and Realization
12 THEA 240[6], 303[3], 304[3]
6 PROD 311[3], 312[3]
12 DFTT 250[6], 451[3], 452[3]
6 Chosen from DFTT 311[3], 321[3], 331[3], 498[3]
6 Chosen from DFTT 315[3], 325[3], 326[3], 335[3], 336[3], 337[3], 398[3]*
6 Design for the Theatre electives**
6 Chosen from SFAR 250[6], 260[6], 270[6] or a Fine Arts elective excluding Design for the Theatre offerings, in consultation with an adviser
12 THEA 411[3] and Department of Theatre elective credits

**Students may apply no more than 12 credits from this list of courses to the Specialization in Design for the Theatre.*
***Students who plan to apply for permission to elect DFTT 414 in their third year should select THEA 411 in their second year.*

60 BFA Specialization in Drama in Education
12 DINE 200[6], 301[3], 302[3]
15 DFTT 250[6], THEA 240[6], THEA 411[3]
6 TPER 200[6] or 211[3] and 212[3]
6 Theatre Performance electives
3 Production elective
6 Department of Theatre electives
12 DINE 412[3], 413[3], THEA 303[3] or 304[3] and an elective from the Department of Theatre
or
12 DINE 420[6], THEA 303[3], 304[3]

The programme, in combination with selected electives from other departments in the University, will prepare students for work in theatre for children; or for community drama work with children or adults in institutional settings such as hospitals, sheltered workshops, and senior citizens homes; or for careers in teaching. In order to qualify as a drama teacher in schools, a diploma year at an accredited institution for teaching certification is required beyond the BFA degree.
The programme is an acceptable prerequisite for graduate work in drama therapy.

72 BFA Specialization in Theatre Performance
6 THEA 303[3], 304[3]
12 PROD 311[3], 312[3], 411[3], 412[3]
18 TPER 211[3], 212[3], 311[3], 312[3], 411[3], 412[3]
9 TPER 213[3], 323[3], 413[3]

15 TPER 215[3], 216[3], 315[3], 316[3], 414[3]
6 Department of Theatre electives excluding Theatre Performance
6 Faculty of Fine Arts electives from any area of the Faculty to be selected in consultation with an adviser

60 Joint Specialization in Playwrighting (English and Theatre)*
12 THEA 240[6], 420[6]
3 Chosen from TPER 201[3], 211[3]
3 PROD 311[3]**
12 Department of Theatre electives
12 ENGL 227[6], 427[6]
12 Electives in drama, chosen from ENGL 235[3], 236[3], 267[6], 277[3], 318[6], 320[6], 335[3], 369[3], 379[3], 392[6]. At least three credits must be in twentieth-century drama
6 Electives in English Literature or Creative Writing

**This programme is intended for a very few exceptionally talented students each year. Students wishing to enrol in this programme should make an application to either the Major in Theatre (BFA) or the Major in Creative Writing (Department of English, BA). In either case, in consultation with their advisers, they should select courses which satisfy the requirements for both the departmental Major and the Joint Specialization. Permission to transfer to the Joint Specialization and to enrol as student playwrights in THEA 420 (Playwrighting Workshop) is normally granted when students enter their final 30 credits and is based upon successful completion of ENGL 227 (Creative Writing: Drama) and ENGL 427 (Advanced Creative Writing: Drama), review of the student's writing to date, and an interview. Students who are refused permission to transfer to the Joint Specialization should expect to complete the requirements for the departmental Major in which they originally enrolled.*
***Students in Playwrighting are given an assignment of an appropriate dimension.*

30 Minor in Theatre
6 Chosen from THEA 301[3], 303[3], 304[3]
6 Drama in Education, Theatre Performance, and/or Design for the Theatre electives
18 Electives from the Department of Theatre

81.140.1 Admission to Programmes in Theatre

The Department of Theatre has a distinct admission procedure in addition to the normal admission process of Concordia University. All applicants to Theatre are required to attend an *interview* as part of the admission process.
Applicants who indicate an interest in Theatre Performance and in Drama in Education are required to *audition.*
Applicants to the Major in Theatre must submit a *letter of intent* (approximately 500 words) expressing their goals and interests in the theatre and in the programme. This letter of intent must be received in the Department of Theatre office at least one week prior to the applicant's scheduled interview and audition.
Applicants who indicate an interest in Design for the Theatre must bring to the interview a *portfolio* of material which demonstrates their creative abilities and interests.
Applicants planning to apply for transfer into the Joint Specialization in Playwrighting must, prior to the interview, submit a *portfolio* of written material which demonstrates their creative potential.
Applicants are required to contact the Department of Theatre before Friday, March 15, 1996 to arrange their appointments and to obtain detailed information regarding interviews, auditions, portfolios, and letters of intent.

Courses

Theatre:

THEA 240 ***The Theatre Event*** (6 credits)
The theatre as a cooperative discipline balancing artistic and organizational concerns and requiring analytical and communication skills. Topics of study include play analysis, theatre organization, production planning, stage management, and theatre administration. Students work in small groups to create short theatre pieces. One-third of the course is devoted to work in production assignments related to this course. *NOTE A/See §200.3*

THEA 301 ***Canadian Theatre*** (3 credits)
The development of theatre in Canada and the study of selected Canadian plays in text and performance. Topics include amateur and professional theatre, the emergence of theatre programmes in schools and universities, regionalism, the cultural boom of the sixties and the development of such institutions as festivals, arts councils, and national and local theatre organizations. *NOTE A/See §200.3*

THEA 303 ***Theatre History I*** (3 credits)
A study of the development of the physical stage and representative theoretical and dramatic works within their social context from pre-history to the eighteenth century in Europe. Where appropriate, screenings of plays representing the periods under study are shown. *NOTE A/See §200.3*

THEA 304 ***Theatre History II*** (3 credits)
Prerequisite: THEA 303 or written permission of the Department of Theatre. A study of the development of the physical stage and representative theoretical and dramatic works within their social context in Europe and North

America from the nineteenth century to the present. Where appropriate, screenings of plays representing the periods under study are shown. *NOTE A/See §200.3*

THEA 317 ***Stage Management*** (3 credits)
Prerequisite: Second-year standing* or written permission of the Department of Theatre. The key role of a stage manager in theatrical production from audition through closing. Topics for consideration include organizational techniques, prompt-book construction and use, scheduling, personnel supervision, and the "running" of a show.
**fewer than 66 credits remaining in degree programme.*

THEA 321 ***Theatre Administration I*** (3 credits)
An introduction to theatre administration including theatre organization and management, budgeting, box office operation, publicity, and public relations. *NOTE A/See §200.3*

THEA 322 ***Theatre Administration II*** (3 credits)
Prerequisite: THEA 321 or written permission of the Department of Theatre. A continuation of THEA 321 with additional topics introduced such as financing, contracting, taxation, and touring. *NOTE A/See §200.3*

THEA 401 ***Québec Theatre*** (3 credits)
A study of selected plays of Québec writers within their cultural milieu. Attendance at both French- and English-language performances is required. Guest speakers involved in Québec theatre are invited to supplement lectures. *NOTE A/See §200.3*
NOTE: Students should have a working knowledge of French.

THEA 402 ***Seminar in Theatre Theory and Criticism*** (3 credits)
Prerequisite: Second-year standing* and written permission of the Department of Theatre. The examination of theatre theory and concepts of criticism.
**fewer than 66 credits remaining in degree programme.*

THEA 403 ***The Theatre in Context*** (3 credits)
Prerequisite: Third-year standing* and written permission of the Department of Theatre. An examination of the role of individual artists in shaping the theatre in contemporary society. The functions and characteristics of the theatre, in a variety of cultural contexts, are examined in discussions and readings. Emphasis is placed on the Canadian theatre and its potential.
**fewer than 66 credits remaining in degree programme.*

THEA 405 ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. Credit granted for independent projects supervised by a faculty member. Students are required to submit a paper based on their investigation. *NOTE C/See §200.3*

THEA 411 ***Directing*** (3 credits)
Prerequisite: Enrolment in the Major in Theatre or the Specialization in Drama in Education or written permission of the Department of Theatre. Examination of and experimentation in staging and production organization. Exercises in visual, structural, and conceptual analysis. *NOTE A/See §200.3*

THEA 415 ***Independent Study II*** (3 credits)
Prerequisite: THEA 405 and written permission of the Department of Theatre. A continuation of THEA 405. Students who have taken THEA 405 register for THEA 415 for additional credits.

THEA 420 ***Playwrighting Workshop*** (6 credits)
Prerequisite: Written permission of the coordinator of the Joint Specialization in Playwrighting and either 12 credits in Theatre Performance or Design for the Theatre, or THEA 411 and PROD 311 previously or concurrently, or enrolment in the Joint Specialization in Playwrighting (English and Theatre) and ENGL 427. A workshop for playwrights, actors, directors, and scenographers in which original scripts are developed for possible studio production. *NOTE A/See §200.3*

THEA 498 ***Topics in Theatre Studies*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. Topics in theatre which may include genres, periods, individual playwrights, and national theatres.
NOTE C/See §200.3

Design for the Theatre:

DFTT 250 ***Introduction to Design for the Theatre*** (6 credits)
An examination of the theatrical design process. Students attend lectures describing the role of designers in the theatre. They also participate in studies in conception, communication, and realization of design ideas. One-third of the course is devoted to work in production assignments related to this course.

DFTT 305 ***Independent Study*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. Credit granted for independent projects in Design for the Theatre supervised by a faculty member.

DFTT 311 ***Lighting Design*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Lighting design for the theatre with emphasis on conception, development, and communication of lighting design ideas. Students participating in lectures

and studios examine theories, aesthetics, and conventions of stage lighting design. They also carry out projects in lighting design conception.

DFTT 315 ***Lighting Design Realization*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Lighting for the stage with emphasis on analysis, development, and execution of lighting design ideas. Students participating in lectures and studios examine lighting as a practical expressive and interpretative media. They carry out projects using stage lighting equipment in an actual theatre space. *NOTE A/See §200.3*

DFTT 321 ***Costume Design*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Costume design for the theatre with emphasis on imaginative and analytical processes of developing and communicating costuming design ideas. Students, participating in lectures, studios and projects, examine theories, aesthetics, and conventions of stage costume design.

DFTT 325 ***Costume Design Realization*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Materials, equipment, techniques, and procedures utilized in the construction of theatre costumes. Emphasis is on patterning, draping, and basic construction methods.

DFTT 326 ***Costume Accessories Realization*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Costuming for the stage with emphasis on analysis, development, and execution of costume design ideas. Students, participating in lectures and studios, examine materials, equipment, and procedures utilized in the realization of costume accessories. They carry out projects in buckram and frame construction for hats, mask-making, and accessory construction. *NOTE A/See §200.3*

DFTT 331 ***Set Design*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Set design for the theatre with emphasis on conception, development, and communication of scenic design ideas. Students, participating in lectures and studios, examine theories, aesthetics, and conventions of set design. They also carry out projects in set conception.

DFTT 335 ***Set Design Realization*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Stage scenery with emphasis on analysis, development, and execution of scenic design ideas. Students, participating in lectures and studios, examine the process of translating scenic designs into actual stage systems. They carry out projects using the equipment and material commonly used in set construction.

DFTT 336 ***Stage Properties*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Studio work in the design and construction of properties and accessories for theatre production.

DFTT 337 ***Scene Painting*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Studio work in the materials and technology of painting for the theatre. *NOTE A/See §200.3*

DFTT 398 ***Special Topics in Design for the Theatre*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Selected topics in design realization. *NOTE C/See §200.3*

DFTT 414 ***Advanced Projects in Design for the Theatre*** (3 credits)
Prerequisite: Third-year standing* in the Specialization in Design for the Theatre and written permission of the Theatre. Students complete major assignments in design or realization for the Department of Theatre productions. *NOTE A/See §200.3*
**fewer than 33 credits remaining in degree programme.*

DFTT 451 ***Designers in the Theatre I*** (3 credits)
Prerequisite: Third-year standing* in the Specialization in Design for the Theatre or written permission of the Department of Theatre. An advanced study of the role of designers in the contemporary theatre. Students participate in discussions concerning the theories, aesthetics, conventions, and standards of the Canadian theatrical design community. Research is carried out with, and about important figures in the Canadian theatre. Students also assemble a body of their design work indicative of their imagination, experiences, and understandings of the theatre. *NOTE A/See §200.3*
**fewer than 33 credits remaining in degree programme.*

DFTT 452 ***Designers in the Theatre II*** (3 credits)
Prerequisite: DFTT 451. A continuation for DFTT 451. *NOTE A/See §200.3*

DFTT 498 ***Special Topics in Design for the Theatre*** (3 credits)
Prerequisite: DFTT 250 or written permission of the Department of Theatre. Selected topics in theatre design. *NOTE C/See §200.3*

Drama in Education:

DINE 200 ***Developmental Drama*** (6 credits)
Prerequisite: Enrolment in the Specialization in

Drama in Education, or the Specialization in Art Education, or written permission of the Department of Theatre. Theory and practice of developmental drama. Opportunities are provided for practical work in the creation of original stories and improvised role plays. Discussion of the dynamics, creative processes, and teaching methods in primary and secondary school is included. *NOTE A/See §200.3*

DINE 201 ***Drama in Early Childhood Education*** (3 credits)
Prerequisite: Enrolment in the Specialization in Early Childhood Education, or the Major in Child Studies, or written permission of the Department of Theatre. Focuses on the development of the participants' fluency and flexibility in imaginative expression, on theories about the nature and value of dramatic play, on the implementation of drama curricula for young children. Included are sensory stimulation, imitative role play, make-believe with objects and actions, spontaneous improvisation.

DINE 301 ***Drama Experiences for Children*** (3 credits)
Prerequisite: DINE 200 or written permission of the Department of Theatre. Design and preparation of classroom work in drama for children. Topics may include the creation of environments for storytelling and role playing, and the use of drama to teach other subjects.

DINE 302 ***Drama for Special Populations*** (3 credits)
Prerequisite: DINE 301 or written permission of the Department of Theatre. Design and preparation of appropriate drama or theatre activities for individuals with special needs in school, community, and institutional settings.

DINE 303 ***Stories and Storytelling*** (3 credits)
Prerequisite: DINE 200 or 201, or six credits in Theatre Performance, or written permission of the Department of Theatre. Focuses on the development of the participants' skills in reading and telling stories, on the creation and evaluation of new stories, on methods of using literature as a basis for dramatic play.
NOTE A/See §200.3

DINE 401 ***Supervised Internship — Elementary Level*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. Students teach a curriculum unit which uses drama methods in an elementary setting. Students are supervised and their teaching performance is evaluated on selected criteria related to teaching competence and professional behaviour.

DINE 402 ***Supervised Internship — Secondary Level*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. Students teach a curriculum unit in creative drama or theatre arts at the secondary level. Students are supervised and their teaching performance is evaluated on selected criteria related to teaching competence and professional behaviour.

DINE 405 ***Independent Study I*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. Credit granted for independent projects in Drama in Education supervised by a faculty member.

DINE 412 ***Introduction to Theatre for Young Audiences*** (3 credits)
Prerequisite: DINE 200 or written permission of the Department of Theatre. The history of theatre for young audiences in the twentieth century, including readings of representative scripts, a study of various performance styles, and an examination of the relationship of style and content to changing cultural views of children. *NOTE A/See §200.3*

DINE 413 ***Theatre for Young Audiences: Production*** (3 credits)
Prerequisite: Enrolment in the Specialization in Drama in Education or audition and written permission of the Department of Theatre. Research and practical work in the collaborative process of developing theatre for young audiences. *NOTE A/See §200.3*

DINE 415 ***Independent Study II*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. A continuation of DINE 405. Students who have taken DINE 405 register for DINE 415 for additional credits.

DINE 420 ***An Introduction to Drama Therapy*** (6 credits)
Prerequisite: DINE 302 or written permission of the Department of Theatre. Lectures and workshops in which students examine the philosophical and historical foundations of drama and theatre in therapy.

DINE 498 ***Special Topics in Drama in Education*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. The study of specialized aspects of Drama in Education.
NOTE A,C/See §200.3

Production:

NOTE: Conditions of access to courses and scheduling:
1. All assignments or roles are given after interview or audition.
2. No student may register for more than six credits in Production courses in any one academic year.
3. Before registering for Production courses, students must make sure they are free to attend all rehearsals or crew calls according to the schedules published each session by the Department of Theatre.

PROD 311 ***Theatre Production I*** (3 credits)
Prerequisite: THEA 240 and DFTT 250, or TPER 212, 213 and 216, or written permission of the Department of Theatre. Participation in a theatre company composed of members of the Department of Theatre which prepares and presents works of theatre to an audience. The preparation requires the integration of scholarly, creative, and organizational activities under the supervision of a team of instructors, all of which must proceed in planned phases according to precise schedules. These activities normally include the following: script analysis with particular concern for dramatic structure, language and its potential for concrete realization; elements of specific concern to the various members of the production team; and studies of the dramatist and of the cultural background of the work including its production history. Several bills of student-directed projects are given each semester, and the Department generally mounts productions in the University theatres each semester. The types of assignment depend on the students' programmes, their knowledge and skills and the collective needs of the team, and include roles in all aspects of theatre production. In addition to their work directly related to their particular assignment on one or more productions, students attend company colloquia during which the production teams explain their approaches and demonstrate their projects.
NOTE A/See §200.3

PROD 312 ***Theatre Production II*** (3 credits)
Prerequisite: PROD 311 or written permission of the Department of Theatre. A continuation of PROD 311 with assignments of a different type or level of complexity, or demanding a higher degree of proficiency.

PROD 408 ***Supervised Internship I***
(3 credits)
Prerequisite: Second-year standing* and written permission of the Department of Theatre. An opportunity for students to obtain credit for work completed for a recognized theatre under the joint supervision of a qualified professional and a full-time Theatre faculty member.
NOTE C/See §200.3
**fewer than 66 credits remaining in degree programme.*

PROD 409 ***Supervised Internship II***
(3 credits)
Prerequisite: PROD 408 and written permission of the Department of Theatre. A continuation of PROD 408. A student repeating PROD 408 register for PROD 409 for credit.

PROD 411 ***Theatre Production III***
(3 credits)
Prerequisite: PROD 312, enrolment in the Specialization in Theatre Performance or written permission of the Department of Theatre. Audition, portfolio evaluation or interview are required. A continuation of PROD 312. Advanced assignments in the various areas of theatre work. Students are expected to report on the results of their work in forms appropriate to their assignments.

PROD 412 ***Theatre Production IV***
(3 credits)
Prerequisite: PROD 411, enrolment in the Specialization in Theatre Performance or written permission of the Department of Theatre. Audition, portfolio evaluation or interview are required. A continuation of PROD 411 with assignments of a different type or level of complexity, or demanding a higher degree of proficiency.

PROD 413 ***Theatre Production V***
(3 credits)
Prerequisite: PROD 412 or written permission of the Department of Theatre. Students in a Mature level or an Extended Credit Programme repeating PROD 412 register for credit under PROD 413.

PROD 414 ***Theatre Production VI***
(3 credits)
Prerequisite: PROD 413 or written permission of the Department of Theatre. Students in a Mature level or an Extended Credit Programme repeating PROD 413 register for credit under PROD 414.

Theatre Performance:

TPER 200 ***Voice, Movement and Acting I***
(6 credits)
Prerequisite: Enrolment in the Major in Theatre or the Minor in Theatre or the Specialization in Drama in Education, or written permission of the Department of Theatre. Students develop skills in improvisation and text work for acting as well as learn to use voice and movement expressively. A routine of voice and body exercise is established. Regular études are presented and critiqued.
NOTE: Students who have received credit for TPER 201, 202 or TPER 211, 212 may not take this course for credit.

TPER 201 ***Acting I*** (3 credits)
Emphasis on developing imagination and physical expression, including basics of improvisation, the playing of intention, and the group ensemble experience working towards presentation. *NOTE A/See §200.3*

TPER 211 ***Ensemble I*** (3 credits)
Prerequisite: Enrolment in the Specialization in Theatre Performance or written permission of the Department of Theatre. The elements of preparation for theatrical presentation with emphasis on the cooperative nature of theatre. Studio work includes instruction in sensory awareness, performer-audience relationships, spatial relationships, and improvisational techniques. The laboratory component consists of preparation of material studied during the

studio sessions. One-third of the course is devoted to work in production assignments related to the course.

TPER 212 ***Ensemble II*** (3 credits)
Prerequisite: TPER 211 and enrolment in a programme in the Department of Theatre. A continuation of TPER 211 with increased emphasis on language and text. One-third of the course is devoted to work in production assignments related to the course.

TPER 213 ***Theatre Movement I*** (3 credits)
Prerequisite: TPER 211 concurrently. Movement for the stage includes such areas of study as centering, relaxation, mime, neutral mask, and studies in rhythm and timing.

TPER 215 ***Voice Studio I*** (3 credits)
Prerequisite: TPER 211 concurrently and written permission of the Department of Theatre. An introduction to voice, speech, and singing skills. Vocal production, articulation, phrasing, and language analysis are taught in studio and laboratory sessions. Private tutorials dealing with selected skills in voice and speech for the performer are included. *NOTE A/See §200.3*
NOTE: Students are expected to bear certain costs in relation to this course.

TPER 216 ***Voice Studio II*** (3 credits)
Prerequisite: TPER 215 and TPER 212 concurrently. A continuation of TPER 215.
NOTE: Students are expected to bear certain costs in relation to this course.

TPER 301 ***Voice, Movement and Acting IIa*** (3 credits)
Prerequisite: TPER 200. Students read, analyse text, and begin exploring characterization. Exercises in movement and text encourage development of the voice and body. Regular études are presented and critiqued.
NOTE: Students who have completed 12 or more credits of Theatre Performance courses may not take this course for credit.
NOTE: Students who have received credit for TPER 300 may not take this course for credit.

TPER 302 ***Voice, Movement and Acting IIb*** (3 credits)
Prerequisite: TPER 301. A continuation of TPER 301.
NOTE: Students who have received credit for TPER 300 may not take this course for credit.

TPER 311 ***Ensemble III*** (3 credits)
Prerequisite: TPER 200 or 212 and written permission of the Department of Theatre. A continuation of TPER 212 with emphasis on principles of characterization in various dramatic genre: elements of rhythm, physical and vocal attitude, language, related improvisation techniques.

TPER 312 ***Ensemble IV*** (3 credits)
Prerequisite: TPER 311 and written permission of the Department of Theatre. A continuation of TPER 311.

TPER 315 ***Voice Studio III*** (3 credits)
Prerequisite: TPER 216, TPER 311 concurrently, and written permission of the Department of Theatre. A continuation of TPER 216 with greater emphasis on shaping patterns of speech, use of language for character development, and an introduction of dialects and accents. Private tutorial dealing with specific elements of speech and voice for the performer is included.
NOTE: Students are expected to bear certain costs for this course.

TPER 316 ***Voice Studio IV*** (3 credits)
Prerequisite: TPER 315, TPER 312 concurrently. A continuation of TPER 315.
NOTE: Students are expected to bear certain costs for this course.

TPER 323 ***Theatre Movement II*** (3 credits)
Prerequisite: TPER 213 or written permission of the Department of Theatre. A continuation of TPER 213.

TPER 401 ***Voice, Movement and Acting IIIa*** (3 credits)
Prerequisite: TPER 302 and written permission of the Department of Theatre. Students explore realistic and/or classical styles in acting. Projects may be drawn from historical and contemporary sources. Regular études are presented and critiqued.
NOTE: Students who have received credit for TPER 400 may not take this course for credit.

TPER 402 ***Voice, Movement and Acting IIIb*** (3 credits)
Prerequisite: TPER 401 and written permission of the Department of Theatre. A continuation of TPER 401.
NOTE: Students who have received credit for TPER 400 may not take this course for credit.

TPER 411 ***Ensemble V*** (3 credits)
Prerequisite: TPER 312, 323, or written permission of the Department of Theatre. A continuation of TPER 312. Focuses on acting styles as they relate to audience-performer relationships in dramatic genre and periods.

TPER 412 ***Ensemble VI*** (3 credits)
Prerequisite: TPER 411 or written permission of the Department of Theatre. A continuation of TPER 411.

TPER 413 ***Advanced Performance Studies I*** (3 credits)
Prerequisite: TPER 323 or written permission of the Department of Theatre. The study of special performance techniques such as musical

theatre, clown, *Commedia dell'Arte*, and mime.
NOTE A/See §200.3
NOTE: Students are expected to bear certain costs in relation to this course.

TPER 414 ***Advanced Performance Studies II*** (3 credits)
Prerequisite: TPER 316 or written permission of the Department of Theatre. The study of advanced voice and speech techniques.
NOTE: Students are expected to bear certain costs in relation to this course.

TPER 417 ***Audition and Résumé Preparation*** (3 credits)
Prerequisite: Third-year standing* in the Specialization in Theatre Performance or in a Department of Theatre programme and written permission of the Department of Theatre. Techniques for auditioning, preparation of résumé, and the business aspects of the performer's work in the professional theatre.
**fewer than 33 credits remaining in degree programme.*

TPER 498 ***Special Topics in Theatre Performance*** (3 credits)
Prerequisite: Written permission of the Department of Theatre. Provides opportunities for studies in selected styles or modes of theatre performance.
NOTE C/See §200.3

The following courses are electives in the BFA Specialization in Design for the Theatre:

Studio Fine Arts:

SFAR 250 ***Visual Language as Content*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course focusing on visual language as content. Colour and its permutations, line, shape, pattern, texture, and composition are the personal vocabulary of each artist. The claiming of this language is central to an art practice; it will be established through two- and three-dimensional projects which challenge students to explore their capacity to visually articulate their complexity as beings in nature and culture.

SFAR 260 ***Integrated Drawing: Intersections*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which embraces various attitudes towards drawing. As an alternative approach, students experience the medium from the different perspectives of various disciplines. The course will explore the possibilities of non-traditional materials and strategies for producing drawings. Analogue (narrative) and notation, as well as the notion of aesthetic and non-aesthetic uses of drawing (such as mapping, charting, making diagrams, documenting) will be investigated.

SFAR 270 ***Extended Studio Practices*** (6 credits)
Prerequisite: Enrolment in a BFA programme or written permission from a designated Studio Art adviser. A studio course which introduces the diversity of contemporary art practice and theory. Alternative venues, interactive art forms, questions of authorship, the significance of the object/artifact, and perceptions other than visual are among the subjects to be explored.

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faculty

section

100

100 FACULTY

Faculty Full-Time

ABRAMI, Philip, BA *Bard Coll.*, MA PhD *Manit., Education*
ACHESON, Palmer, BA *Lond.*, MBA *Québ.*, MS PhD *Indiana, TESL (Applied Linguistics)*
ACLAND, C. Derek, BComm MBA *Qu.*, PhD *N. Carolina*, CA, *Accountancy*
ACLAND, Joan, BA *Car.*, MA PhD *C'dia, Art History*
ADAMS, Liselyn, BMus *Boston*, Cert *Royal Conserv., The Hague, Music*
ADLEY, Thomas J., BSc *Sir G. Wms.*, PhD DIC *Lond., Chemistry and Biochemistry*
AHMAD, Arshad, BComm *C'dia*, MBA *McG., Finance*
AHMAD, Jaleel, BA *Alig.*, MS *Pitt.*, PhD *M.I.T., Economics*
AHMAD, M. Omair, BEng *Sir G. Wms.*, BSc *Alld.*, DEng *C'dia, Electrical and Computer Engineering*
AHMED, A.K. Waizuddin, BEng PhD *C'dia, Mechanical Engineering*
AHSAN, Syed M., BA *Dacca*, MA *Essex*, PhD *McM., Economics*
AIKEN, S. Robert, BA *Belf.*, MA *McM.*, PhD *Penn. State, Geography*
AL-KHALILI, Asim J., MSc PhD *Strath., Electrical and Computer Engineering*
ALAGAR, Vangalur S., BA MSc *Madr.*, MA *N.Y. State*, PhD *McG., Computer Science*
ALBERT, Paul J., BSc PhD *New Br., Biology*
ALFRED, Gerald, BA *C'dia*, MA PhD *Cornell, Political Science*
ALI, Syed Twareque, BSc MSc *Dacca*, MS PhD *Roch., Mathematics and Statistics*
ALKASS, Sabah T., BSc *U. of Tech.*, MSc PhD *Lough., Centre for Building Studies*
ALLEN, Sr. Prudence, R.S.M., BA *Roch.*, PhD *Claremont, Calif., Philosophy*
ALLEN, Robert, MFA MA *Cornell, English*
ALLISON, R.R., BA MA *Calif.*, PhD *Flor. State, Theatre*
ALLOR, Martin, BA *Oakland*, PhD *Illinois, Communication Studies*
ALONI, Nimrod, *Visiting Scholar in Education*
ALVI, Shafiq A., BA MA *Karachi*, PhD *Colo., Economics*
ALY, Ibrahim M., BComm MS *Egypt*, MBA PhD *N. Texas State, Accountancy*
AMANTEA, Gisèle, BFA *Calg.*, MFA *Puget Sound (Wash.), Sculpture, Ceramics and Fibres*
AMIOUNY, Samir, BEng *Amer. of Beirut*, MSc PhD *Ga. Inst. of Tech., Mechanical Engineering*
AMIR, Shimon, BA MA *Tel Aviv*, PhD *McG., Psychology*
AMIT, Zalman, BA PhD *McG., Psychology*
AMIT-TALAI, Vered, BA *McG.*, MA *Tor.*, PhD *Manc., Sociology and Anthropology*
ANAND, Kailash K., BA *Punj.*, MA *Delhi*, PhD *N.Y., Mathematics and Statistics*
ANASTASIU, Stefan, DipGraph *Inst. d'arts plastiques, Bucarest, Cinema*
ANASTASOPOULOS, Anastas, BA *Athens*, MA PhD *Roch., Economics*
ANDERSON, Jacqueline M., MA *Dund.*, MSc *Alta.*, PhD *Madison, Wis., Geography*
ANDERSON, Perry D., BA MSc *W. Ont.*, PhD *Ore. State, Biology*
ANDRES, David H., BA MA *Texas*, PhD *Wat., Psychology*
ANDRUS, Donald F.P., BA MA *Tor., Art History*
ANG, James, BS *Philippines*, MS PhD *Purdue, Visiting Scholar in Finance*
ANTOLIN, Francisco, BA *Léon-Oviedo, Spain*, LèsL *Madrid*, MA *Mexico*, DèsL *Madrid, Modern Languages (Spanish)*
ANVARI, Mohsen, BEng *McM.*, MBA *C'dia*, MSc PhD *Case Western Res., Finance*
APPELBAUM, Steven H., BS *Temple*, MA *St. Jos.*, PhD *Ott., Management*
APRIL, Raymonde, BA *Laval, Printmaking and Photography*
ARBUCKLE-MAAG, Tannis Y., BA *Manit.*, PhD *Tor., Psychology*
ARGHEYD, Kamal, Higher Nat'l. DME *Enfield Coll. of Tech.*, MBA *Iran C.M.S.*, DBA *Harv., Management*
ARNOPOULOS, Paris J., BSc BA *Sir G. Wms.*, MA *N.Y.*, MA *Col., Political Science*
ARNOPOULOS, Sheila, BA *McG.*, MA *C'dia, Journalism*
ASHFORTH, Blake E., BComm PhD *Tor., Management*
ASHTAKALA, B., BE *Madr.*, ME *Roor.*, PhD *Wat., Civil Engineering*
ATHIENITIS, Andreas K., BSc *N.B.*, PhD *Wat.*, PEng *Alta., Centre for Building Studies*
ATWOOD, J. William, BEng *McG.*, MASc *Tor.*, PhD *Illinois, Computer Science*
AUCHINACHIE, Gerald M., BA *Br. Col.*, MA *Tor.*, PhD *Montr., English*
AUSTIN, Kevin, BMus MMA *McG., Music*

BABA, Vishwanath V., BEng *Madr.*, MBA *W. Ill.*, PhD *Br. Col., Management*
BAGGALEY, Jon, BA PhD *Sheff., Education*
BALDWIN, Mary E., BSc MSc *Tas.*, SM *Harv., Chemistry and Biochemistry*
BALLOU, Deborah, BA *Bryn Mawr Coll.*, MPA *Texas at Austin*, PhD *Carnegie-Mellon, Decision Sciences and Management Information Systems*

BANKS, Peter, BSc PhD *Br. Col., Chemistry and Biochemistry*
BARAKETT, Joyce, BA *Sir G. Wms.*, MA *McG.*, PhD *Montr., Education*
BARAN, Boris, BSc *McG.*, MSc *Wayne State, Decision Sciences and Management Information Systems*
BARBIERI, Bryan S., BA *Montr.*, MBA *Col.*, BCL LLB *McG., Marketing*
BARIBEAU, Jacinthe, BA MPs MA PhD *Ott., Psychology*
BARLOW, I. Max, BA *Wales*, MA *Cinc.*, PhD *McG., Geography*
BARON, Lois J., BA *McG.*, MA *Mich. State*, PhD *Tor., Education*
BARTON, Charles R., BA MA *Yale*, PhD *N.Y., Linguistics*
BAUER, Jan Heini, BA *Sir G. Wms.*, MA PhD *Manit., Psychology*
BAYNE, Clarence S., BA MA *Br. Col.*, PhD *McG., Decision Sciences and Management Information Systems*
BECKMAN, Carolyn, AA *Stockton Coll., Calif.*, AB MA *Calif.*, PhD *Rutgers, Biology*
BÉDARD, Claude, BSc *Laval*, MSc PhD *Imperial Coll., U.K., Centre for Building Studies*
BELCOURT, Tracey, BSc *Alta.*, MA PhD *Qu., Economics*
BELINSKY, Morton M., BSc MSc *McG.*, PhD *Montr., Mathematics and Statistics*
BELISLE, Jean, BA MA *Montr.*, PhD *Paris, Art History*
BELMORE, Nancy, AB *Randolph-Macon*, MS PhD *Georgetown, TESL (Applied Linguistics)*
BELZIL, Christian, BSc Msc *Montr.*, PhD *Cornell, Economics*
BENNETT, Vicki, BA MA *Ott., Religion*
BERGIER, Michel J., MBA PhD *SUNY (Buffalo), Marketing*
BERGLER, Sabine, Vordiplom *Stuttgart*, MS *Mass.*, PhD *Brandeis, Computer Science*
BERNARD, Robert M., BS MS *Tenn.*, PhD *Wash., Education*
BERTRAND, Charles L., BA *Western Wash.*, MA *Ore.*, PhD *Wis., History*
BETTON, Sandra, BComm *McM.*, MSc PhD *Br.Col., Finance*
BHAT, R.B., BEng *Mys.*, MTech PhD *I.I.T., Mechanical Engineering*
BHATNAGAR, Jitendra K., BSc LLB *Agra*, MA PhD *Lond., Education*
BIRD, Frederick B., BA BD *Harv.*, PhD *G.T.U.(Berkeley), Religion*
BIRD, Peter H., BSc PhD *Sheff., Chemistry and Biochemistry*
BISSON, Diane, BA MA *Montr., Design Art*
BLACH, Adolf E., BSc MEng *Sir G. Wms.*, PhD *Montr.*, Ing *Mechanical Engineering*
BLAIR, Lorrie, *Art Education*
BODE, Frederick A., BA *U.C.L.A.*, MA PhD *Yale, History*
BOLTON, M. Catherine, BA *Car.*, MA *Qu.*, PhD *McM., Classics*
BOTTENBERG, Wolfgang, BMus *Edmonton*, MMus DMA *Cinc., Music*
BOUCHARD, Paul, BFA *C'dia*, MA *Montr., Education*
BOURJOLLY, Jean-Marie, BSc MSc *Idem*, MSc *Montr.*, PhD *Wat., Decision Sciences and Management Information Systems*
BOYARSKY, Abraham J., BEng ME PhD *McG., Mathematics and Statistics*
BOYD, Gary, BSc *Car.*, MSc *Sask.*, PhD *Br. Col., Education*
BRENDER, William J., BA MSc PhD *McG., Psychology*
BRENNAN, Kit, BA *Qu.*, MFA *Alta., Theatre*
BRESLAW, Jon A., BA MA *Camb.*, PhD *Calif. (Berkeley), Economics*
BRETON, Gabriel, BA *Manit.*, MA *Montr.*, PhD *Mich., Psychology*
BRIAN, Michael, MA *Oxf.*, PhD *Montr., English*
BRIAN, Mary A., BA *Tor.*, MA *Bryn-Mawr, Mathematics and Statistics*
BRIGHT, Kairiin, BFA MFA *Br. Col., Theatre*
BRIGHT, Pamela, BA BD *Q'ld*, MA PhD, *Notre Dame (Ind.), Theological Studies*
BRODT, Abraham, BSc *McG.*, MBA PhD *N.Y.U., Finance*
BRODY, Josef, MSc *Charles*, PhD *Czech., Mathematics and Statistics*
BROES, Arthur, BA *Manhattan Coll.*, MA *Col.*, PhD *Pitt., English*
BROSS, Michael, BA MA PhD *Manit., Psychology*
BROWN, Daniel, AB *Xavier*, DPhil *Tübingen, Classics*
BROWN, Jeri, BA *Westman Coll.*, MEd *Kent State, Music*
BRUNET, J. Pierre, BComm *Montr.*, MBA *Qu.*, PhD *H.E.C., Management*
BRUNETTE, Louise, BA MTrad *Montr., Études françaises*
BUCKNER, H. Taylor, BS *Louisville*, MBA *Montr.*, PhD *Calif. (Berkeley), Sociology*
BUI, Tien D., BASc *Ott.*, MEng *Car.*, PhD *York (Can.), Computer Science*
BUKOWSKI, William, BA *Camisius Coll.*, MA PhD *Mich., Psychology*
BULGAK, Akif Asil, BS *Tech. U. of Istanbul*, MS PhD *Wis., Mechanical Engineering*
BUTLER, Gregory, BSc PhD *Syd., Computer Science*
BUTOVSKY, Mervin, BA *Sir G. Wms.*, MA *McG., English*
BUXTON, William, BA *Alta. Oxf.*, MA *Lond.*, PhD *Berlin, Communications Studies*
BÜYÜKKURT, B. Kemal, BA MBA *Bogazici*, PhD *Indiana, Marketing*
BÜYÜKKURT, Meral, BA *Bogazici*, MBA PhD *Indiana, Decision Sciences and Management Information Systems*
BYERS, Julia, BEd *McG.*, MA *Imm. Heart Coll., Art Education and Art Therapy*
BYERS, William P., BSc MSc *McG.*, PhD *Calif. (Berkeley), Mathematics and Statistics*

BYRNES, Terence, BA *Antioch*, MA *C'dia, English*

CAMPANELLI, John, BEng MEng PhD *McG., Civil Engineering*
CAMPBELL, Bryan, BSc *Tor.*, MA *Tor. C'dia*, PhD *Montr., Economics*
CAPOBIANCO, John A., BSc *McM.*, DSc *Geneva, Chemistry and Biochemistry*
CARNEY, Michael, BSocSc *Keele*, MBA PhD *Brad., Management*
CARR, Graham, BA MA *Qu.*, PhD *Maine, History*
CARTER, Sylvia I., BA MA *Tor.*, MEd EdD *Mass., Applied Social Science*
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CARPENTIER, Louise, BA *Laval*, BLS *Tor.*, MBibl *Montr.*, MA *C'dia, Head, Government Publications and Special Collections Services*
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ABRAN, Henri, *Études françaises*
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AGOSTINI, Tony, *Management*
AHMAD, Manzoor, *Mathematics and Statistics*
AHMED, S. Ben, *Modern Languages and Linguistics*
AHOOJA, Ramesh, *Electrical and Computer Engineering*
AIKEN, Rebecca B., *Sociology and Anthropology*
AL-ASHOOR, Raad, *Electrical and Computer Engineering*
AL-ASSADI, Salem, *Electrical and Computer Engineering*
AL-KHABYYR, Nasyr Abdul, *Music*
AMIRAULT, Steve, *Music*
ANASTASOPOULOS, Susan, *Economics*
ANDERSON, Janice, *Art History*
ANDREWS, Alanoly Joseph, *Computer Science*
ANGLIN, William, *Mathematics and Statistics*
ANTONECCHIA, Rosanne, *Management*
ANTONIO, Gary, *Music*
APRAHAMIAN, Sima, *Sociology and Anthropology*
ASHBY, Richard, *Communication Studies*
ASHTAKALA-VARIGONDA, Meera, *Geography*
ASKEW, Pamela, *English*
AUCLAIR, Myra, *Modern Languages and Linguistics*
AUSTIN, Claire, *Chemistry and Biochemistry*
AZEVEDO, Roger, *Education*
AZIZ, Katherine, *Finance*

BABE, Robert, *Communication Studies*
BABINEAU, Bernard, *Economics*
BAERT, Renée, *Studio Art*
BAIG, Mirza Ahmad Ali, *Liberal Arts College*
BAILLARGEON, Carole, *Sculpture, Ceramics and Fibres*
BALASS, Joseph, *Contemporary Dance*
BALDWIN, James, *Communication Studies*
BALFOUR, Barbara, *Printmaking and Photography*
BALK, Roger, *Engineering and Computer Science*
BANKS, William, *Mathematics and Statistics*
BARCLAY, Barbara Ann, *English as a Second Language*
BARKER, Leslie, *Exercise Science*
BARLOW-PIPER, Judith Ann, *Library Studies*
BARRECA, Francesca, *Modern Languages and Linguistics*
BARRINGTON, Janette, *Education*
BARSS, Patchen, *Journalism*
BASTIEN, Lynne, *Printmaking and Photography*
BATTA, Vinod, *Civil Engineering*
BAUGNIET, Gabriel, *Classics*
BAXTER, Bonnie Jean, *Printmaking and Photography*
BEAUDET, Richard, *Music*
BEAUDRY, Adèle E., *Painting and Drawing*
BECHARD, Robert, *Marketing*
BECK, Jeffrey, *Management*
BEDAIR, Osama, *Civil Engineering*
BEDROS, Varoujan, *Mathematics and Statistics*
BEKELE, Alem, *Mathematics and Statistics*
BELTEMPO, Joseph, *Psychology*
BENOIT, Marie, *English*
BENTLEY, John, *Education*
BENY, Judith, *Theatre*
BERARD, Michael, *Music*
BERAZNIK, Rosanne, *Applied Social Science*
BEREZOWSKY, Liliana, *Sculpture, Ceramics and Fibres*

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BOBROW, Barbara, *Education*
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BOGARDI, George, *Studio Art*
BOHAN, Tracy, *English*
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BOLDUC, Rémi, *Music*
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BOOTHROYD, James, *Electrical and Computer Engineering*
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BOUCHARD, Marie, *Études françaises*
BOUCHARD-ULUSOY, Diane, *Études françaises*
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BROWNE, Sharon, *Exercise Science*
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BRYAN, Jay, *Journalism*
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BUCHANAN, Craig, *Computer Science*
BURKE, Allan Andrew, *English*
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BUSTROS, Jean-Claude, *Cinema*
BUZZELL, Judith E., *Art Education*
CALISCH, Abby, *Art Therapy*
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CHAN MAN FONG, Gisela, *History*
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CHARLAND, Louis C., *Philosophy*
CHARPENTIER, Rolland, *Management*
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COON, Bill, *Music*
COONEY, Peter, *Journalism*
COONEY, Robin, *Psychology*
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DAVID, Priscilla, *Business Communications*
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DAVIES, Howard, *Cinema*
DAVISON, Carol Margaret, *English*
DAY, James, *Management*
DE COSTE, Mark J., *Contemporary Dance*
DE SIMONE, Christina, *Education*
DE SIMONE, Lidia, *Exercise Science*
DEAN, Valerie, *Contemporary Dance*
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DEBRUILLE, Bruno, *Psychology*
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DESLAURIERS, Roch, *Études françaises*
DESLOGES, Marie-Claude, *Music*
DESROSIERS DE LANAUZE, Renée, *Management*
DETOURREIL, Savithri, *Religion*
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DI LILLO, Antoine, *Études françaises*
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DONOVAN, Michael, *Communication Studies*
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DUBE, Lakshmi S., *Mathematics and Statistics*
DUBE, Stéphane, *Psychology*
DUBE, Suzanne, *Sociology and Anthropology*
DUBINSKY, Lon, *Painting and Drawing*
DUCHSCHERER, Brian, *Cinema*
DUCKETT, Michael, *History*
DUCKWORTH, Martin, *Cinema*
DUFAUX, Georges, *Cinema*
DUFF, Marilyn, *Teaching of English as a Second Language*
DUMA, Ewa, *Mathematics and Statistics*
DUNCAN, Donna, *Library Studies*
DUNLOP, Kelle, *Journalism*
DUROCHER, Micheline, *Printmaking and Photography*
DUVIEUSART, Bernadette, *Études françaises*
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ELEY, David Roche, *Lonergan University College*
ELLIOTT, David, *Painting and Drawing*
ELLIS, Robert, *Music*
ELLISON, Penelope Ann, *Finance*
EMARD, Sylvain, *Contemporary Dance*
ENDACOTT, Laura, *Sculpture, Ceramics and Fibres*
ENGLER, Steven, *Religion*
ENRIGHT, Joanne, *Psychology*
ENTWISTLE, Harold, *Education*
ERRUNZA, Maria J., *Marketing*
EWING, Marjorie, *Theatre*

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FAKOURI, John, *Management*
FARAH-HERBERT, Louli, *Études françaises*
FARKAS, Maryann, *History*
FEINDEL, Janet, *Theatre*
FEIST, Daniel, *Communication Studies*
FELDMAN, Edith, *Education*
FERGUSON, Trevor, *English*
FERNANDES, Neil A. *Management*
FERNANDEZ, Sonsoles, *Modern Languages and Lingusitics*

FILIATRAULT, Patrick, *Management*
FISCHER, Norman, *Philosophy*
FISET, John W., *Education*
FISHER, Jennifer, *Studio Art*
FITZPATRICK-MARTIN, Iris, *Engineering*
FLEMING, Martha, *Studio Art*
FLEURY, Jocelyne, *Music*
FORBES, James, *Psychology*
FORD-ROSENTHAL, Heather A., *Sociology*
FORGET, Normand, *Music*
FORSYTHE, Christine, *Sociology and Anthropology*
FOURNIER, Pierre, *Études françaises*
FRANCES, Robert, *Finance*
FRANCIS, René, *Physics*
FRANKLIN, David, *Management*
FRANKLIN, Jonathan, *Management*
FRASER, Judith M., *Chemistry and Biochemistry*
FRÉGEAU, Pierre, *Political Science*
FRIEDLAND, Linda J., *Music*
FROHMAN, Joel, *Painting and Drawing*
FUKUSHIMA, Michael, *Cinema*

GAGNÉ, Hélène, *Music*
GAGNON, Gilles, *Études françaises*
GAGNON, Jean, *Interdisciplinary Studies (FA)*
GALINA, Harry Z., *Psychology*
GALLAGHER, Stephen, *Political Science*
GAMOY, Bernard, *Painting and Drawing*
GANESAN, Rajamohan, *Mechanical Engineering*
GARAVITO, Joyce, *Modern Languages and Linguistics*
GARCIA, Flavia, *Études françaises*
GARON, Stéphane, *Centre for Building Studies*
GARRETT, Brian, *Philosophy*
GASHER, Mike, *Journalism*
GAUTHIER, Pierre, *Mathematics and Statistics*
GAUTHIER, Vianney, *Cinema*
GAVIN, Joseph, *Political Science*
GDALEVITCH, Ruth, *Sociology and Anthropology*
GEORGANTAS, Antonios, *Mechanical Engineering*
GERICKE, Irene, *Art Therapy*
GERMINARIO, Ralph, *Biology*
GERVAIS, Robert, *Management*
GHADERPANAH, Sadegh, *Computer Science*
GHAN, Linda, *English*
GHAN, Zelda, *Teaching of English as a Second Language*
GHEDAMSI, Abderrazak, *Computer Science*
GHIBERTI, Simon, *Contemporary Dance*
GHORAYEB, Simone, *Études françaises*
GIANNOPOULOS, Dina, *Psychology*
GIDENGIL, Bayram Zeki, *Marketing*
GIFFORD, Robert, *Art History*
GILARDINO, Sergio M., *Modern Languages and Linguistics*
GIROLAMI, Margaret Ann, *Library Studies*
GLUCK, Yael, *Sociology and Anthropology*
GODIN, Julie, *English*
GODLEY, John S., *Geography*
GOKUL CHANDER, Prabhakar, *Computer Science*
GOLD, Rena, *Teaching of English as a Second Language*
GOLDIN, Gerald A., *Mathematics and Statistics*
GOMEZ-PERALES, Juan, *Sculpture, Ceramics and Fibres*
GOULD, Norma (Randy), *Teaching of English as a Second Language*
GOURD, Simon-Pierre, *Theatre*
GOURLAY, Margaret, *Communication Studies*
GOYETTE, Claude, *Theatre*
GOYETTE, Louis, *Cinema*
GREEN, Doreen, *Political Science*
GREENSPAN, Harry, *Mathematics and Statistics*
GREGOIRE, Pierre A., *Art Therapy*
GRETO, Julie, *Art Education*
GROSS, Marlene, *English as a Second Language*
GROSS, Pauline, *Applied Social Science*
GRZELAK, Michel, *Cinema*
GUILLEMETTE, Louis, *Contemporary Dance*
GULKIN, Harry, *Cinema*
GUNNING, Pamela, *Teaching of English as a Second Language*
GUPTA, Brijesh, *Finance*
GUZDER, Jaswant, *Art Therapy*

HABER, Mark, *Marketing*
HABIB, Donald, *Music*
HABIB, Sam, *Centre for Building Studies*
HADDAD, Nasser, *Mathematics and Statistics*
HAGERMAN, Ellen, *Communication Studies*
HAGYARD, Trevor, *Accountancy*
HAILPERN, Rosalyn, *Teaching of English as a Second Language*
HALL, John L., *Management*
HALTER, Randall, *Teaching of English as a Second Language*
HAMEL, Christiane P., *Études françaises*
HAMILTON, Jennifer, *Studio Art*
HAMMAMI, Larbi, *Finance*
HAMMI, Abdelkrim, *Economics*
HANNA, Aiman, *Computer Science*
HARMAT, Heidi, *Modern Languages and Linguistics*
HARRIS, Lewis, *Journalism*
HARROW, Ronald, *Mathematics and Statistics*
HARSANY, Mary, *Art Therapy*
HARVOR, Elisabeth, *English*
HARWOOD, Susanne, *Études françaises*
HAUGHEY, Elizabeth, *Music*
HAYAT, Perwaiz, *Religion*
HEARNE, Dana, *Simone de Beauvoir Institute*
HÉBERT, Louise, *Études françaises*
HECHT, Robert, *Accountancy*
HEFT, Riva, *Education*
HENIG SCHUBERT, Lori, *Business Communications*
HENLEY, Kevin, *Economics*
HENRICKS, Nelson, *Interdisciplinary Studies (FA)*
HEPPNER, Maxine, *Contemporary Dance*
HERBISON, Philip, *Cinema*
HERSHORN, Marvin, *Political Science*
HEUER, Roman, *Design Art*
HIRSCHBERG, Jack Jacob, *Psychology*
HNATCHUK, James W., *Economics*
HOBBINS, Joan, *Library Studies*
HOCKENSTEIN, Pauline, *Education*
HODAI HEMAMI, Shahla, *Psychology*
HOLMES, Karla, *Teaching of English as a Second Language*

HOMEL, David, *Études françaises*
HOPKINS, Tom. W., *Painting and Drawing*
HORNE, Stephen, *Studio Art*
HORNER, Stanley E., *Art Education and Art Therapy*
HOSSEINI, Hassan, *Computer Science*
HOWES, Heather L., *Music*
HUMBER, Nancy Gwen, *Art Therapy*
HUNG, Henry, *Mathematics and Statistics*
HUNTER, Jesse, *Teaching of English as a Second Language*

IBRAHIM, Safwat, *Civil Engineering*
IOFFREDI, Michael, *Accountancy*
ION, John, *Chemistry and Biochemistry*
IRWIN, Theodore E., *Geography*
ISENBERG-FIMA, Sandra, *Biology*
ISLAM, Majidul, *Accountancy*
ISLAM, Mohammed, *Economics*
ISLAM, Syed S., *Political Science*
ISSLEY, Renata, *Education*

JABABO, Khaled, *Computer Science*
JACOBS, Cheryl, *Biology*
JACOBS, Donna, *Art Therapy*
JACOBS, Leon, *Sociology and Anthropology*
JACOBSON, Larry, *Accountancy*
JAMES, Elijah M., *Finance*
JAMIL, Hasan, *Computer Science*
JENKINS, Cheryl, *Economics*
JEPPESEN, Sandra, *English*
JI, Shuixin, *Mathematics and Statistics*
JOHNSON, Harlan, *Painting and Drawing*
JOHNSTON, Kerry W., *Political Science*
JOINER, Susan, *Applied Social Science*
JONAS, Carol G.L., *Education*
JONASSOHN, Kurt, *Sociology and Anthropology*
JONES, Francine, *Marketing*
JOSEPH, Howard, *Religion*
JOURDE, Laurence, *Études françaises*

KALMAN, Rica-Judith, *English*
KALOGEROPOULOS, Dennis, *Psychology*
KAMTHAN, Pankaj Kumar, *Mathematics and Statistics*
KARIM, Mohammed Rezaul, *Mathematics and Statistics*
KASSABIAN, Hagop, *Teaching of English as a Second Language*
KATTOU, Spyros, *Computer Science*
KAUSHAL, Ashok, *Mechanical Engineering*
KAY, Linda, *Journalism*
KEATON, Robert J., *Political Science*
KEENAN, James, *Marketing*
KEIGHTLEY, Keir, *Communication Studies*
KELLEHER, David, *Applied Social Science*
KELLY, Louise, *Management*
KENNEALLY, Michael, *English*
KENNEDY, Kathy, *Contemporary Dance*
KENNER, Roger, *Teaching of English as a Second Language*
KENYERES, Judith, *Education*
KERMANI, Moin, *Decision Sciences and Management Information Systems*
KES-COSTA, Barbara, *Modern Languages and Linguistics*
KHATCHERIAN, Tsolaire, *Mathematics and Statistics*
KIEFER, Eniko, *Mathematics and Statistics*
KIESENHOFER, Anton, *Modern Languages and Linguistics*
KING, Holly, *Painting and Drawing*
KINSLOW, Valerie, *Music*
KIRK, Douglas, *Music*
KISIL, Gerry, *Communication Studies*
KISILENKO, Peter, *Music*
KLEIMAN, Larry, *Biology*
KLEIN, Anamaria, *Education*
KLEPKO, John, *Music*
KNUDSEN, Christian, *Printmaking and Photography*
KOECHLING, Ulrike, *Psychology*
KORMOS, Lilli, *Psychology*
KOSTOPOULOS, Chrys, *Accountancy*
KOUNOU, Michel, *Political Science*
KRAUEL, Jerry, *Modern Languages and Linguistics*
KRENTZ, David, *Geography*
KRUPSKI, Jadwiga, *Liberal Arts College*
KUBINA, S.J., *Electrical and Computer Engineering*
KWAS, Michelle, *Psychology*

LABELLE, Paul, *Business Communications*
LACH, Edith, *Modern Languages and Linguistics*
LAFOND, Nathalie, *Modern Languages and Linguistics*
LAFRAMBOISE, Kevin, *Decision Sciences and Management Information Systems*
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LAGACÉ, Eric, *Music*
LAINE, René, *Études françaises*
LAING, Stephen J., *Marketing*
LALLIER, Adalbert G., *Economics*
LANCTOT, François, *Études françaises*
LANCTOT, Micheline, *Cinema*
LANDRY, William, *Teaching of English as a Second Language*
LANGSHAW, Karen, *Design Art*
LANIEL, Denyse, *Études françaises*
LANTHIER, John P., *Engineering and Computer Science*
LANTHIER-O'CONNOR, Sheila, *English*
LARIN, Lise-Hélène, *Painting and Drawing*
LARIVIÈRE, Louise, *Études françaises*
LAROCHELLE, Bruce, *Accountancy*
LARUE, Johanne, *Cinema*
LASZLO, George P., *Quality Control*
LAULY, Jean-Paul, *Accountancy*
LAURIE-MONACO, Elizabeth, *Applied Social Science*
LAURIN-ANCTIL, Céline, *Études françaises*
LAUZIÈRE, Abubakr Joel, *Études françaises*
LAVACK, Anne M., *Marketing*
LAWRENCE, P. Scott, *English*
LAXER, Debra, *Management*
LAXER, Ian, *Economics*
LEAHY, David, *English*
LEB, Danielle, *Études françaises*
LEBEL, André J., *Library Studies*
LEBLANC, Charmaine, *Contemporary Dance*
LEBLANC, Victoria, *Business Communications*
LECAVALIER, Jeannot, *Études françaises*

LECCA, Doina, *Modern Languages and Linguistics*
LECLAIRE, Suzanne, *Art Therapy*
LECORPS-PIECZKOWA, Catherine, *Études françaises*
LEE, Hyun-Suk, *Mathematics and Statistics*
LEFEVRE, Esther R., *Psychology*
LEGAULT, Mark, *Political Science*
LEHMANN, Valerie, *Études françaises*
LEMIEUX, Theresa, *English*
LEON, Michael, *History*
LEONARD, Gordon, *Management*
LEPRINCE, Martine, *English*
LERAKIS, George, *Mathematics and Statistics*
LERNER, Loren Ruth, *Art History*
LEROUX, Roland, *Management*
LESSER, Stephen M., *Accountancy*
LEVY, Jonathan, *Finance*
LEWIN, Elise, *Education*
LEWIS, Barbara, *Music*
LEWIS, Jefferson, *Communication Studies*
LEWIS, Murray, *English*
LEWIS, Robert, *English*
LI, Weiming, *Mathematics and Statistics*
LIEBICH, Christine Renée, *Études françaises*
LINNEY, Robert, *Journalism*
LIOUBIMOV, Vadim, *Mathematics and Statistics*
LIPSKY, Helmut, *Music*
LIPSKY, Linda, *English*
LIU, Feng, *Finance*
LO, Elsa, *Education*
LOBEL, Mia, *Applied Social Science*
LOBER, Kyra Rosalind, *Contemporary Dance*
LOFFREE, Carrie, *Études françaises*
LONDON, Naomi, *Sculpture, Ceramics and Fibres*
LOTEY, Andrée, *Études françaises*
LOW, Tom, *Management*
LUCHT, Martin, *Accountancy*
LUXTON, Stephen, *English*
LYNE, Peter, *Theatre*

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MACDONALD, Kathleen, *Classics*
MACDONALD-DAUGULIS, Annabelle, *Teaching of English as a Second Language*
MACDONELL, Rod, *Journalism*
MACDOWALL, Cyndra, *Printmaking and Photography*
MACKENZIE, Kenneth, *Decision Sciences and Management Information Systems*
MACLAREN, Glen, *Marketing*
MACMILLAN, Don, *Engineering and Computer Science*
MACNAMARA, Aoife, *Art Education*
MAESTRO, Lani, *Studio Art*
MAGADINI, Peter, *Music*
MAGOR, Susan, *Management*
MAIKA, Frances, *English*
MAINBERGER-STERN, Regine, *Sculpture, Ceramics and Fibres*
MAJOR, Marlene, *Psychology*
MAJZELS, Robert, *English*
MALLETTE, Yves, *Political Science*
MALY, Mary P., *Biology*
MAMFREDIS, Maria, *Religion*
MANCINI, Tony, *Decision Sciences and Management Information Systems*
MANIAKIS, Theodore, *Modern Languages and Linguistics*
MANTELLO, Peter Andrew, *Cinema*
MARELLI, Marie-Paule, *Études françaises*
MARK, Deirdre, *Études françaises*
MARKWELL, Hazel, *Theological Studies*
MARTEL, Claude, *Communication Studies*
MARTIN, Monique, *Music*
MASCUILLI, Joseph, *Political Science*
MASON, Jean S., *English*
MASSICOTTE, William, *Philosophy*
MATHIEU, Paul, *Sculpture, Ceramics and Fibres*
MATHIEU, Réal, *Music*
MAUREY, Johanna, *English*
MAZUMDAR, Sanjay Kumar, *Mechanical Engineering*
MCAULEY, John, *English*
MCAUSLAND, Andrew, *Computer Literacy*
MCDONAGH, Patrick, *Engineering and Computer Science*
MCDONELL, Margaret, *English*
MCEWEN, Jean, *Painting and Drawing*
MCGILLIS, Donald T., *Electrical and Computer Engineering*
MCGREGOR, Fred, *Applied Social Science*
MCGUIRE, Beverly, *Music*
MCININCH, David, *Political Science*
MCKAY, John, *Communication Studies*
MCKNIGHT, Rebecca, *Teaching of English as a Second Language*
MCSWEENEY, Gregory, *English*
MEARNS, Robert A., *Mathematics and Statistics*
MEDICOFF, Mark, *Business Communications*
MÉNARD, Élise, *Theatre*
MENZIES, Stephen, *Cinema*
MERHI, Hussein, *Sociology and Anthropology*
MEROZ, Elazar, *Mathematics and Statistics*
METSON, Graham, *Painting and Drawing*
MEYER, Rudi, *Art History*
MICHEL, David, *Business Communications*
MILKIAS, Paulos, *Political Science*
MILKMAN, Lauretta J., *Music*
MILL, Davina, *Psychology*
MILLAR, Joyce, *Art History*
MILLER, Ashley, *Sculpture, Ceramics and Fibres*
MILLS, Josephine, *Communication Studies*
MIRON, François, *Cinema*
MOALLEM, Mehrdad, *Electrical and Computer Engineering*
MOAZZAMI, Bakhtiar, *Economics*
MOGHADDAM, Mahmood K., *English*
MOLLER, Lora Christine, *Psychology*
MONGENOT, Hélène, *Études françaises*
MORAN, Alejandro, *Theatre*
MORANO, Marianna, *Mathematics and Statistics*
MOREL, Denise, *Teaching of English as a Second Language*
MORISETTE, Louis, *Mathematics and Statistics*
MORRIS, Sr. Christian, *Theological Studies*
MOSCOVITZ, David, *Marketing*

MOSER, Klara, *Physics*
MOTT, Cathy, *Education*
MOUSTAPHA, Hany, *Mechanical Engineering*
MROZ, Stanley, *Accountancy*
MUCCI, Giuseppe, *Accountancy*
MUHAMMAD, Wali, *Music*
MUNOZ, Stan, *Psychology*
MUNRO-JONES, Jonathan, *Teaching of English as a Second Language*
MURPHY-COOK, Claire, *Management*
MURRAY, Robert, *Painting and Drawing*
MYLES, Lawrence R., *Teaching of English as a Second Language*

NACHFOLGER, Stanley, *Political Science*
NACIRI, Ahmed, *Accountancy*
NANDURI, Rao, *Political Science*
NARAYANAN, Sridhar, *Computer Science*
NASSI, Morris, *Decision Sciences and Management Information Systems*
NAWROTEK, Krzysztof, *Mathematics and Statistics*
NEILL, Cheryl, *Theatre*
NEMETH, George, *Psychology*
NEMIROFF, Howard, *Finance*
NG, Taien, *English*
NICHOLLS, Winston, *Economics*
NICKELCHOK, Rick, *Exercise Science*
NICOLAI, Margaret, *Education*
NIMARKO, A. Gyasi, *Economics*
NIXON, Virginia, *Liberal Arts College*
NOBILE, Louise, *Mathematics and Statistics*
NOCHERA-OUIMETTE, Maria-Elena, *Modern Languages and Linguistics*
NOISEUX, Marie Hélène, *Finance*
NOLTING, Gisela, *English*
NORVID, Adrian, *Painting and Drawing*
NOWAK, Ted, *Accountancy*

OADES, Lorraine, *Studio Fine Arts*
OBUCHOWICZ, Tadeusz, *Electrical and Computer Engineering*
OHAMA, Baco, *Sculpture, Ceramics and Fibres*
OSTOJIC, George, *Physics*
OUELLET, Pierre, *Political Science*
OVERBURY, Olga, *Psychology*
OWEN, K.D.J., *Engineering and Computer Science*
OXLEY, Daniel, *Painting and Drawing*

PADDEN, Nina Louise, *Teaching of English as a Second Language*
PALMER, Noelle, *Economics*
PANT, Bhuvan C., *Chemistry and Biochemistry*
PAO-MERCIER, Laura, *Sociology and Anthropology*
PARDIAK, Edward, *Management*
PARISELLA, John, *Political Science*
PASDERMAJIAN, Penney, *Sociology and Anthropology*
PASK, Albert Kevin, *English*
PASTERIS, Mario, *Education*
PATERSON, Pauline, *Applied Social Science*
PAYETTE, André, *Accountancy*
PEARCE, Brent, *Marketing*
PEETERS, Suzanne, *Management*
PELLETIER, René, *Exercise Science*
PELUSO, Maria, *Political Science*
PERRI, Mary, *Sociology and Anthropology*
PETCOFF, Christine, *Études françaises*
PETERS, Kenneth, *Painting and Drawing*
PHILIP, Bruno, *Cinema*
PHILIPPOUSSIS, Anthony, *Mathematics and Statistics*
PHULL, Smittar Singh, *Mathematics and Statistics*
PICARD, Marc, *Modern Languages and Linguistics*
PIDDUCK, Julianne, *Communication Studies*
PIGGOTT, Sylvia, *Library Studies*
PINHEIRO, Humberto, *Electrical and Computer Engineering*
PINSONNEAULT, Michael, *Music*
PLAIN, Odile, *Études françaises*
PLANT, John, *Contemporary Dance*
PLANTE, André, *Education*
PLAYLE, C. Kim, *Decision Sciences and Management Information Systems*
PLESZEWSKI, Zbigniew, *Psychology*
PLOTKIN, Ninel, *Electrical and Computer Engineering*
PLUME, Vita, *Sculpture, Ceramics and Fibres*
POCOCK GOLDMAN, Dorothy M., *Chemistry and Biochemistry*
POLAK, Monique, *English*
POLLAK, Liliane, *Études françaises*
POLLAK, Roland, *Cinema*
POLLARD, Matthew, *Modern Languages and Linguistics*
POPESCU, Alex, *Marketing*
PORTEBOIS, Yannick, *Études françaises*
PORTERFIELD, Willard M., *Marketing*
PORTNOFF, Morrie, *Geography*
PRATT, P. Gerald, *Modern Languages and Linguistics*
PRENDERGAST, Lynne, *Decision Sciences and Management Information Systems*
PREVILLE, Philip, *Communication Studies*
PROVOST, Luc, *Management*
PRUSKA-CARROLL, Marika, *Political Science*
PUTALIVO, Patrizia, *Modern Languages and Linguistics*

RABCHUK, Gordon K., *Library Studies*
RADECKI, Brigitte, *Painting and Drawing*
RADFORD, Laurie, *Music*
RAGHUNATHAN, Chakravarthi, *Mathematics and Statistics*
RAHMAN, Mohammad Mahbubur, *Mathematics and Statistics*
RAHN-BAILEY, Janice, *Art Education*
RAJIVA, Vijayalakshmi, *Political Science*
RAKITA, Ian, *Finance*
RAMAGE, Linda Joyce, *Sociology and Anthropology*
RAMAMONJISOA, Elia, *Accountancy*
RAMBAHAL, Richard, *Finance*
RAMSARAN, Tara, *Accountancy*
RANTA, Leila, *Teaching of English as a Second Language*
RAO, Dhruva N., *Political Science*
RAPPEL, Ron, *Exercise Science*

RAUDSEPP, Karl, *Music*
RAVENSBERGEN, Frances, *Education*
RAYMER-SIMON, Karen, *Études françaises*
REEVES, Shelley, *Painting and Drawing*
REGLER, Erwin, *Design Art*
REIDEL, Dieter, *Geography*
REILLY, Rosemary, *Applied Social Science*
RENZO, Maria, *Decision Sciences and Management Information Systems*
RHEAULT-BOISSÉ, Pascal-Andrée, *Études françaises*
RHEAUME, Charles, *Geography*
RHODES, Barbara M.J., *Engineering Mathematics*
RIBAUX, Sonia, *Education*
RICHARD, Jean-Yves, *Études françaises*
RIFKIND, Candida, *English*
RIGAULT, Geneviève, *Études françaises*
RIGOTTI, Marco, *Civil Engineering*
RING, Nancy, *Studio Art*
RITCHIE, Jeanette, *Art Education and Art Therapy*
RIVARD, Jacques, *Études françaises*
ROBERGE, Laurent L., *Sculpture, Ceramics and Fibres*
ROBERTS, Arthur W., *Music*
ROBERTSON, Erica, *Applied Social Science*
ROBERTSON, Ken, *Education*
ROBINS, Ross, *Management*
ROCHETTE, Michel, *Mathematics and Statistics*
ROCHFORD, Joseph, *Psychology*
ROMANO, Alex, *Accountancy*
ROMPRÉ, Normand, *Cinema*
ROSENBERG, Michael M., *Sociology and Anthropology*
ROSS, Yaron, *Music*
ROSSIN-ARTHIAT, Maurice Fernand, *Decision Sciences and Management Information Systems*
ROTSTEIN, Marc David, *Religion*
ROURKE, Martin, *Education*
ROWE, Brenda, *Simone de Beauvoir Institute*
ROY, André, *Études françaises*
ROYCROFT, Michelle, *Art History*
RUDDY, James W., *Mathematics and Statistics*
RUGGLES, Clifton, *Art Education and Art Therapy*
RUSS, Stephanie, *Printmaking and Photography*
RUTENBERG, Avigdor Victor, *Civil Engineering*
RUTTENBERG, Barbara, *Sociology and Anthropology*
RYAN, Norman, *Mechanical Engineering*

SAAD, Nasser, *Mathematics and Statistics*
SAADE, Raafat G., *Civil Engineering*
SACK, Joanabbey, *Art Therapy*
SACKSNER, Jeffrey H., *Management*
SAHARUNI, Randy, *Printmaking and Photography*
SAID, Aminu, *Economics*
SAID, Fady, *Computer Science*
SAID, Joseph, *Computer Science*
SAKS, Robby D., *Marketing*
SALAHUB, Jennifer, *Art History*
SALAMOUN, Ghassan, *Decision Sciences and Management Information Systems*
SALDANHA, Luis, *Mathematics and Statistics*
SALMOND, Noel, *Religion*
SAMPERI, Jacqueline, *Modern Languages and Linguistics*
SAMSON, Louise, *Music*
SAMUEL, Michael, *Religion*
SAMY, Mounir H., *Art Therapy*
SANDOGHDAR, Farid, *Mathematics and Statistics*
SANG, Murray, *Marketing*
SANTANA, Carlos-Luis, *Computer Science*
SARAH, Robyn, *English*
SARNA, Lazar, *Management*
SAUNDERS, Martha, *Simone de Beauvoir Institute*
SAVAGE, Susan, *Theatre*
SAVARD, Gilles, *Teaching of English as a Second Language*
SAXENA, Vinesh C., *Mechanical Engineering*
SBARRA, Ugo, *Modern Languages and Linguistics*
SCHAFFER, Lauren, *Sculpture, Ceramics and Fibres*
SCHNEIDER, Peter, *Management*
SCHOFIELD, Mark, *Education*
SCHOFIELD, Stephen, *Sculpture, Ceramics and Fibres*
SCHWARTZ, Gary, *Music*
SCHWARTZ, Sandra, *Psychology*
SCHWARZ, Nora, *Applied Social Science*
SCIRETTA, Martine, *Modern Languages and Linguistics*
SCOFIELD, Ann, *Theatre*
SCOTT, Mary J., *Applied Social Science*
SCOTT, Susan, *Painting and Drawing*
SEDDON, Elizabeth, *History*
SEGAL, Carol, *Applied Social Science*
SEGAL, Marcia, *English*
SEGUIN, Michel, *Études françaises*
SELDIN, Jonathan, *Mathematics and Statistics*
SELJAK, David, *Religion*
SENIK, Denis, *Marketing*
SEPINWALL, Sharyn, *Management*
SEPPANEN, Ritva, *English*
SERAFINI, Diana, *Marketing*
SERRUYA, Charlotte, *Études françaises*
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SHEHATA, Shereef B.M., *Electrical and Computer Engineering*
SHEPHERD, Andrea, *Journalism*
SHEPHERD, Stephanie, *Painting and Drawing*
SHERMAN, Leah, *Art Education and Art Therapy*
SHIKATANI, Gerry, *English*
SHIRI-VARNAAMKHAASTI, Nematola, *Computer Science*
SHOME, Anamitra, *Accountancy*
SIAM, John J., *Economics*
SICOTTE, Isabelle, *Management*
SIERPE, Eino, *Library Studies*
SILAS, Mary, *Engineering and Computer Science*
SILVERMAN, Yehudit, *Art Therapy*
SIMARD, Marie Christine, *Printmaking and Photography*

SIMMS, Lorraine, *Studio Fine Arts*
SIMON, Cheryl, *Studio Art*
SIMPKINS, Harold J., *Marketing*
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SINACEUR, Faycal Regis, *Economics*
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SKERRY, Shelagh A., *Psychology*
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SMALRIDGE, Brian, *Library Studies*
SMITH, Allan, *Leisure Studies*
SMITH, Brian R., *Psychology*
SMITH, Christopher, *Music*
SMITH, Lynn, *Cinema*
SMOLAR, Neil, *Music*
SNYDER, Joseph, *Psychology*
SOLEYMANI, Mohammad Reza, *Electrical and Computer Engineering*
SOMERS, Bertram A., *Economics*
SOROKA, Robert, *Marketing*
SOTIRON, Michael M., *Journalism*
SOUFANI, Khaled, *Economics*
SPACAGNA, Giuseppe, *Modern Languages and Linguistics*
SPENCE, Alwin C., *Psychology*
SPENCE, John, *Education*
SPEVACK, Lesley Aiton, *Exercise Science*
SPEYER-OFENBERG, Marc, *Science and Human Affairs*
SPROULE, Eileen, *Theatre*
ST-ONGE, Jean-Guy, *Marketing*
ST-PIERRE, Armand, *Decision Sciences and Management Information Systems*
STAFFORD, Joan, *Applied Social Science*
STANDISH, Kit, *Leisure Studies*
STARKER, Krystyna, *Sociology and Anthropology*
STEINBERG, Tanya J., *Geography*
STEVENS, Laird, *Philosophy*
STEVENS, Lesley, *Religion*
STEWART, James, *Journalism*
STIEVENART, Nathalie, *Mathematics and Statistics*
STIHARU, Ion, *Mechanical Engineering*
STONE, Simon A., *Music*
STORME, Françoise, *Études françaises*
STOTLAND, Stephen, *Psychology*
STRATHY, Nick, *Computer Science*
STYAN, Evelyn, *Modern Languages and Linguistics*
SU, Xijia, *Accountancy*
SUBRAMANIAN, Iyer, *Computer Science*
SULLIVAN, Françoise, *Painting and Drawing*
SULLIVAN, Joe, *Music*
SULLIVAN BROWN, Sheila, *Education*
SULTAN, Nazar T., *Management*
SUNDARARAJAN, Duraisamy, *Electrical and Computer Engineering*
SUTTON, Winston, *Theatre*
SWITZER, Allan, *Painting and Drawing*
SZABAD-SMYTH, Linda, *Art Education and Art Therapy*
SZABO, Attila, *Psychology*
SZAMOSI, Geza, *Science College*
SZIGETVARI, Zsolt, *Business Communications*
SZPILBERG, Anna, *Psychology*

TAMAS, Steven, *Accountancy*
TAMBOR, Henry, *Business Communications*
TANG, Yuan-Yan, *Computer Science*
TANSEY, Vicki, *Theatre*
TARDIF, Yves, *Management*
TASH, Marlene, *Teaching of English as a Second Language*
TASHTOUSH, Nehad, *Physics*
TATE, Daniel, *Leisure Studies*
TATLOW, Frederick, *Teaching of English as a Second Language*
TAWHID, Mohamed, *Mathematics and Statistics*
TAYLOR, Matthew, *English*
TAYLOR, Rae Marie, *Leisure Studies*
TEIXEIRA, Herminio, *Political Science*
TEO, Raymund Yee Mia, *Computer Science*
TEOLI, Maria-Luisa, *Modern Languages and Linguistics*
TERRY, Don, *Cinema*
TETT, Alison, *Business Communications*
THÉRIAULT, Madeleine, *Music*
THERRIEN, Michel-Charles, *Music*
THIMMHARDY, Eugene, *Civil Engineering*
THOMAS, Tim, *Political Science*
TICOLL, Gary, *Decision Sciences and Management Information Systems*
TILAK, Shrinivas, *Religion*
TILBY, Wendy, *Cinema*
TIWARI, Umanath, *Mathematics and Statistics*
TJANDRA, Inora Adiono, *Computer Science*
TOMASZEWSKI, Fiona, *History*
TOPOUSHIAN, Mayda, *Communication Studies*
TOTARO, Donato, *Cinema*
TOURVILLE, Josée, *Études françaises*
TRAINOR, Thérèse, *Finance*
TRAN, Thérèse Ngocvan, *Études françaises*
TREMBLAY, Hélène, *Printmaking and Photography*
TSAKIRI, Irini, *Philosophy*
TSOUBLEKAS, George, *Economics*
TURCOTTE, Emile, *Sociology and Anthropology*
TURGEON, Alain, *Music*
TURINO, Rocco, *Sculpture, Ceramics and Fibres*
TURKEY, Adnan, *Electrical and Computer Engineering*
TURNBULL, Robert, *Psychology*
TURNER, David, *Music*
TURNER FLOOD, Janice, *Painting and Drawing*
TUROVSKY, Eleonora, *Music*
TYRRELL, Roger, *Cinema*

ULLMANN, François-René, *Études françaises*
UNGAR, Andras, *English*
UNRUCH, Michael, *Marketing*

VADNAY, Gabor, *Cinema*
VALLE, Robert, *Applied Social Science*
VAN DRIESCHE, Kevin, *English*
VAN GRIMDE, Isabelle, *Contemporary Dance*
VANDYCKE, Jacqueline, *Études françaises*
VARLEY, Jill, *English*

VAUGHAN, Kathleen, *Painting and Drawing*
VERONNEAU, Pierre, *Cinema*
VERRON, Alain, *Études françaises*
VIGEANT, Michelle, *Women's Studies*

WAHHAB, Monir, *Finance*
WALKER, Peter R., *Finance*
WALSH, Rev. John, s.j., *Theological Studies*
WALTER, Kathryn, *Interdisciplinary Studies (FA)*
WANG, Shuye, *Economics*
WARREN, Ronald, *Études françaises*
WAYNE, Linda, *Women's Studies*
WEATHERBY, Lonnie, *Library Studies*
WEBB, Edward, *Computer Science*
WEINBERG, Sarah, *Education*
WEISBORD, Merrily, *English*
WELLS, David, *Education*
WHATLING, Michael, *Education*
WHITE, Robert, *Centre for Building Studies*
WHITEHEAD, Judy, *Simone de Beauvoir Institute*
WILLIS, David A., *Sociology and Anthropology*
WILSON, Jacqueline, *Art Therapy*
WILSON, James, *English*
WILSON, Warren, *History*
WINIARZ, John, *Music*
WOLFE, Joshua, *Geography*
WONG, Edward, *Finance*
WONG, Stephen, *Finance*
WOODCOCK, Laurel, *Studio Art*
WORENKLEIN, Abe, *Education*

XENOS WHISTON, Mary, *Education*
XIA, Xiaoxin, *Mechanical Engineering*

ZACCHIA, Camillo, *Psychology*
ZAHRAI, Alhan, *Mathematics and Statistics*
ZAJDMAN, Karen, *Accountancy*
ZARINS, Harry J., *Exercise Science*
ZAWITKOWSKI, Beverly, *Theatre*
ZHANG, Xuelin, *Economics*
ZIELINSKI, Gerard, *Computer Science*
ZINEGYI, Alex P., *Marketing*
ZORZI, Alfred, *Accountancy*
ZOSKY PROULX, Brenda, *Journalism*
ZWIRZ, Fred, *Accountancy*

Retired Full-Time Faculty

1995 Retirements

ADLER, Leonda S., BA *Sir G. Wms.*, MA *McG.*, SM *M.I.T.*, *Mathematics and Statistics*
ANGEL, Roger B., MA PhD *McG.*, *Philosophy*
ANGELL, Harold M., BA *Sir G. Wms.*, MA *McG.*, *Political Science*
BEISSEL, Henry E., BPhil *Cologne*, MA *Tor.*, *English*
BIGELOW, Robert, BFA *Chouinard Art Inst.*, *Printmaking and Photography*
BOYLE, Lawrence, BA BComm *Montr.*, MA *McG.*, PhD *Maryland*, *Finance*
DE VRIES, Pieter J., BA PhD *Alta.*, *Anthropology*
ENESCO, Hildegard E., BA *Reed*, MA PhD *Col.*, *Biology*
GUINDON, Hubert, BA BPh PhL MA *Ott.*, *Sociology*
HOFFMAN, Stanton de V., AB *Temple*, MA PhD *Penn. State*, *English*
KUSANO, Kazuo, BA MA PhD *Wash.*, *Sociology*
LANDSLEY, Patrick, Dip *Winn. Sch. of Art*, Dip *Montr. Mus. of Fine Arts*, Dip *Acad. Montmartre*, Dip *Acad. Ranson, Paris*, *Painting and Drawing*
LASKEY, Dallas, BA MA *New Br.*, PhD *Harv.*, *Philosophy*
NEWELL, Alex, BA MA PhD *Pitt.*, *English*
PATTERSON, Cleveland S., BA MA *Camb.*, MBA PhD *McG.*, *Finance*
REZNICEK, William, BA *Allegheny Coll.*, MA *Cornell*, *Theatre*
ROSSNER, Rev. John L., BA *Trin. (Hartford)*, MA *Brown*, MDiv *Nashotah*, STM *McG.*, PhD *Heed*, PhD *O.I.U.*, *Religion*
SANKAR, Thiagas S., BEng *Madr.*, ME *I.I.Sc.*, PhD *Wat.*, *Mechanical Engineering*
SZILASI, Gabor, *Printmaking and Photography*
TAGGART, Gilbert C., MA *Colo.*, PhD *Montr.*, *Études françaises*
TAYLOR, Nancy D., BA *McM.*, MA PhD *McG.*, *Psychology*
WANG, Joseph C., BSME *Nat'l. Taiwan*, MEng PhD *W.Ont.*, *Centre for Building Studies*
WILLS, Roland O., BSc *Dal.*, MBA *Windsor*, *Decision Sciences and Management Information Systems*
XISTRIS, George D., BEng MEng *McG.*, DScA *Montr.*, Ing, *Mechanical Engineering*

1994 Retirements

ASHTAKALA, Symala S., BSc *Mad.*, PhD *Tor.*, *Associate Professor of Biology*
ENGLISH, G. Bruce, BA *Montr.*, BCL *McG.*, MComm *Tor.*, *Associate Professor of Finance*
MARSDEN, Michael, MA *Camb.*, MSc PhD *McG.*, *Associate Professor of Geography*
McDONALD, Richard D., BA MSW *Tor.*, *Professor Emeritus of Applied Social Science*
SHERMAN, Leah, BA *Sir G. Wms.*, MA *N.Y.*, *Professor Emeritus of Art Education and Art Therapy*
SIMON, Pierre, MA PhD *Montr.*, *Professor of Education*
SWAMY, M.N.S., BSc *Mys.*, DIISc *I.I.Sc.*, MSc PhD *Sask.*, Ing, *Professor of Electrical and Computer Engineering*

1993 Retirements

ADAMS, F. Geoffrey W., BA MA *Tor.*, PhD *Chic., Professor of History*

BARKMAN, Bruce, BA *Middlebury Coll.*, PhD *Georgetown, Associate Professor, TESL (Applied Linguistics)*

ENTWISTLE, Harold, BS(Econ) *Lond.*, MEd *Manc.*, PhD *Lond., Professor Emeritus of Education*

GRAM, Harold A., BA *Wat.*, AM *Harv.*, BD *Luthern.*, PhD *Syr., Associate Professor of Management*

GRAYSON, John D., MA PhD *N.Y.U., Associate Professor of Modern Languages (Spanish and Linguistics)*

HORNER, Stanley, BA *Sir G. Wms.*, MSc *Syr., Professor Emeritus of Art Education and Art Therapy*

KOVACS, Rezso L., Dip *Bud.*, MSc(Phys) MSc(Math) PhD *McG., Associate Professor of Physics*

LAGACÉ, Bernard, BA *Montr., Professor of Music*

LINGAPPAIAH, Giri Shastry, MSc *Mys., Associate Professor of Mathematics and Statistics*

NISH, J. Cameron, BA *Sir G. Wms.*, MA *Montr.*, PhD *Laval*, PhD *Tor, Professor of History*

VERSCHINGEL, Roger H.C., BSc *Sir G. Wms.*, PhD *McG., Professor of Chemistry and Biochemistry*

1992 Retirements

AHMAD, Mobin M., MA *Punj.*, MA PhD *Chic., Associate Professor of Philosophy*

CHODAK, Szymon, MA *Leningrad*, PhD *Warsaw, Professor of Sociology*

EAPPEN, Collaparambil E., BSc *Trav.*, MSc *Bom.*, PhD *McG., Associate Professor of Physics*

ERLWANGER, Stanley H., BSc *Cape T.*, MA *Eastern Mich.*, PhD *Illinois, Associate Professor of Mathematics and Statistics*

KAWCZAK, Andrew, LLM MA *Cracow*, PhD *Warsaw, Professor of Philosophy*

KWOK, C.K., BEng ME PhD *McG.*, Ing, *Professor of Mechanical Engineering*

LANGFORD, Cooper H., AB *Harv.*, PhD *Northwestern, Professor of Chemistry and Biochemistry*

RYAN, John J., BA *St. Mary of the Lake Seminary*, MA PhD *Chic., Associate Professor of Theological Studies*

TROITSKY, Michael S., DipCE DTechSc *Belgrade*, Ing, *Professor Emeritus of Civil Engineering*

1991 Retirements

ADAMSON, Alan H., BA *Manit.*, PhD *Lond., Professor Emeritus of History*

ARMSTRONG, Muriel, BA BEd *Alta.*, MA *McG., Professor of Economics*

BABARIK, Paul, BA MA *Tor.*, PhD *Chic., Associate Professor of Psychology*

BELKIN, Roslyn, BA *Sir G. Wms.*, MA PhD *Montr., Professor of English*

BRUNE, Audrey, BA *N.Y.*, MA *Iowa, Associate Professor of English*

DAVIES, S., BA *McM.*, MA *Warw.*, PhD *McM., Assistant Professor of History*

DAVIS, Charles A., STB *St. Edmunds Ware*, STL *Greg.*, PhD *Rome, Professor Emeritus of Religion*

de ROMER, Henry S., BA MSc PhD *McG., Associate Professor of Geology*

KETTER, Anne Marie, BLS MA *McG.*, PhD *Vienna, Associate Professor of Modern Languages (German)*

KUBINA, Stanley J., BEng(EP) MEng PhD *McG.*, Ing, *Professor Emeritus of Electrical and Computer Engineering*

LAU, Herman Henri, DES *Le Saulchoir*, MA *Montr., Associate Professor of Philosophy*

LOMBOS, Béla A., DipPhysChem *Szeged*, PhD *Montr., Professor of Electrical and Computer Engineering*

McDOUGALL, David J., BSc MSc PhD *McG., Professor of Geology*

MOULEDOUX, Joseph C., BA MA *Louisiana*, PhD *Kentucky, Associate Professor of Sociology and Anthropology*

PALMER, Joseph D., BA *Indiana State*, MA PhD *Mich., Associate Professor, TESL (Applied Linguistics)*

RIPSTEIN, Howard B., MBA *Qu.*, CA, *Associate Professor of Accountancy*

SENEZ, John A., BSc *Manit.*, MSc *McG., Professor of Mathematics and Statistics*

TASCONE, Joseph F., BA MA *St. Bonaventure, Associate Professor of Sociology*

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equivalents index

section

200

200.1 FACULTY OF ARTS AND SCIENCE

Curriculum changes in the Faculty will affect some of the entries in the following list. Students should consult with their programme adviser if they already have credits for a course which may be equivalent to another.

Students who have taken a given course under an old number may not repeat it for credit under an equivalent number.

NOTE: The use of "C" in the course prefix is discontinued. Unless otherwise indicated, a course previously prefixed with a C is equivalent to the identically numbered one without the C prefix.

NOTE: For old course numbers used prior to 1980-81, see Undergraduate Calendar 1984-85, or consult a programme adviser.

Course	Old Numbers and Equivalents
Anthropology	
202	C211
270	370
303, 304	C362
311	368
315	SOCI 313 or SOCI 314
323	398X
370, 371	C369
401, 402	C469
421, 422	426
423, 424	459
430	498E
431	401 or 402
440	306
461, 462	460
471	340
495	C499
Applied Social Science	
240	C355 or C356 } C351
250	C250 or C355 } C212
313	413
318	418
331	431
353	453
354	454
356	456
361	461
420	C421
440	C441
450	C451 or C452
490	C400

Course	Old Numbers and Equivalents
Biology	
210	C205
225	298D OR 230 or 240
226	298E OR 250 or 270
234, 235	C238
261	C260
266	298C
322	C222
330	C231
334	C237
337, 338	C238 OR 234 or 235
344	246
346, 349	348
352	C461 OR 351
359, 381	353
363	467
366	463
367	262 OR 398B
383, 384	333
385	232
386	233
480	C450
481	C451
Canadian Studies	
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320	INTE C320*
321	INTE C321*
421	INTE C421*
422	INTE C422*
* Prior to 1990-91	
Chemistry and Biochemistry	
217, 218	211

Course	Old Numbers and Equivalents
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233	334
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235	331, 298B
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327	C328
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338	238, 239
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392	C390, C397 OR C390, C399
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478	470

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240		HIST 223
242		HIST 225
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267	C265	HIST C229
324	C224	
325	C225	
326, 327	C320	CLAS C220
341	241	HIST 323 — HIST 224
343	243	HIST 327 — HIST 226
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321	C205
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351	C350
352	C467
354	398I
366, 367	C363
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460, 461	C465
468, 469	C466
470, 471	C468
496, 497	C495

Economics

221	See §200.7
222	See §200.7
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318	316
319	317
324	323
393	398B, 398C
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482	383, 498D

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345	C340, C341, C343
345	C342, C343
496, 497	495

Education

264	C392
371	C370
373	C270
381	386
387	C381
422, 423	C421

Course	Old Numbers and Equivalents
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241, 440	C441
473, 474	C470
475	C472
490	C497
491	C498

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FRAN 212*	FRAN 202, FRAN 203
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FRAN 214	FRAN 204
FRAN 215	FRAN 205
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FRAN 306	FRAN C306, FRAN C307
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FRAN 384*	FRAN C368, FRAN C369
FRAN 402	FRAN C324
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FRAN 497*	FRAN C499 *
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*6 credits

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457	C453
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358	C355
359	C355
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332	C317	C412
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303	C301
310	C405
343	COMS C340 COMS C342 COMS C343
400	C401
402	C402
446	COMS C446

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Simone de Beauvoir Institute

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WSDB 399	WMNS 399
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494	492

Urban Studies

352	SCHA C253
254	SCHA C254
280	INTE C280
379	INTE C380
382	URBS C380
481	INTE C481
483, 484	URBS C482

Women's Studies

(See Simone de Beauvoir Institute)

200.2 FACULTY OF COMMERCE AND ADMINISTRATION

NOTE A The use of this note after certain course descriptions indicates that there exists an equivalent course and the students who have credits for this equivalent course may not take the listed course for credits. To find out the equivalents to the listed course refer to the index below.

NOTE C The use of this note after a course description indicates that with the permission of the Department a student may take the listed course twice for credits provided that a different subject is dealt with the second time.

Course	Old Numbers and Equivalents				
Accountancy					
213		N213	211	313A/B, 300	
	214	N214	211	315B, 300	
217				411A/B, 400 402	
218		N216	Man 411 Fin 416	413B, 402	
220	(120)			320Z	
221	(121)			320Z	
303	C403	N421		503A	421
323		N313	411	415B, 400	
335	C325	N314	412	419B, 408	
407			407	507B	
414		N215 N315	Man 411 Fin 416	511B	425
422	N422				
429		N432	431	517B, 508 519B, 508	432
432		N433	431		433
441		N441	Com Law 441	513A/B, 504	
442				515B, 504	
451		N451	(Computer Auditing New Name)		
461		N461		509A, 507B	
468		Intl Bus C468			
470			470	560Z	
471			471	560Z	
Administration					
201	(101)	N201		312Z	
202	(102)	N202		312Z	
350		MARK	C350	515Z	
Decision Sciences and Management Information Systems*					
**NOTE:*	*The 'QUAN' designation has been changed to 'DESC'.*				
	Formerly Quantitative Methods				
222	221				
243		N243	Psych C315 242 Econ C221 Math 241 Stat 242		308Z
244		N244	242 Econ C222 Stat 242	308Z	
250	313 314 315				
253			QUAN 353		
313		N313	411 QA 411	518Z	
314		N314	411 QA 411	518Z	
350	365				
353		N353	Math 415		
354		N354	Math 415		
361	316				
362	412				
371	345				
375	448				
378	444				
381	323				
382	327				
383	423	N423	421		
445		N445	442		
446		N446	442		
451	416				
464	415	N415	412		
466	414				
477	447				
481	424	N424	421		
482	425	N425	422		
483	422				
485	421				
486	427				
490	433	N433			
492	426	N426	422		
493	417				
Finance					
214	314				

Course	Old Numbers and Equivalents			
	215	N215	315, 413	407/A/B, 408
314		N314	413	409B, 408 215
315		N315	413	314
417		N417		
418		N418		
430		N430	424	
431		N431	424	
440		N440	423, 426	541B
441		N441	423, 426	
452		N450	423, 427	530Z
453		N450	423	530Z
455			427	
460		N460	429	
461		N461	429	
467		Int Bus	C467	

Management

211	N211	{ Com Law 211	
213	N213	{ Psyc 011 211 }	Psyc C200
214 215	N214 N215 }	Soc 211	
266		466	
313			413A/B, 414
315			415B, 414
340	N340	430	
341	N341	430	
345	N345	421	470Z
346	N346	421	470Z
364 464			
365 465			
368	N368	451	503B
369	N369	451	
401			501A
405			505B
407			507A
409			509B
460	N460	453	511B
461	N461	453	
462	N462	432	
463	N463	432	
464	N464	433	
465	N465	433	
466	{ N466 Intl Bus	452 C466	
467	N467	452	
475	N475	211	502Z
476	N476	211	502Z
499			560Z

Course	Old Numbers and Equivalents			
Marketing				
213	N213	{ 211, 411, 421 }	419A/B, 320	
350	N350	{ 211, 411, 421 }	421B, 320	
351	ADMI	C350,	515	
352	N352	431		
402	N402	412,	451	551B
452	N342	412,	451	
453	N453	{ 221, 222, 431 }		523B
454	N454	414,	461	521A
462	Intl Bus	C462		
463	N463	481		
464	N464			
465	Intl Bus	C465		
485	N485			
490	N490			
491	N491			

200.3 FACULTY OF FINE ARTS

NOTE A The use of this note after certain course descriptions indicates that there exists an equivalent course and the students who have credits for this equivalent course may not take the listed course for credits.

Equivalences prior to 1977-78 are not listed below. For courses with indicated equivalences which are not listed below consult either the Department Office, the Office of Student Affairs, Faculty of Fine Arts or the Office of the Registrar.

NOTE C The use of this note after a course description indicates that the course may be repeated for credit. However, either the number or the letter preceding the number must differ.

Course	Old Numbers and Equivalents
Art History	
ARTH 260	ARTH 220
ARTH 262	ARTH 347
ARTH 263	ARTH 348
ARTH 264	ARTH 320
ARTH 266	ARTH 322
ARTH 267	ARTH 234, C234
ARTH 268	ARTH 234
ARTH 284	ARTH 280, 281
ARTH 290	ARTH 210
ARTH 350	ARTH 320
ARTH 352	ARTH 322
ARTH 360	ARTH 339
ARTH 361	ARTH 339
ARTH 362	ARTH 440
ARTH 363	ARTH 441
ARTH 364	ARTH 342, 442
ARTH 365	ARTH 443
ARTH 366	ARTH 343
ARTH 367	ARTH 455
ARTH 368	ARTH 459
ARTH 369	ARTH 458
ARTH 370	ARTH 244, C444
ARTH 371	ARTH 425
ARTH 373	ARTH 427
ARTH 388	ARTH 282
ARTH 397	ARTH 410
ARTH 400	ARTH 484
ARTH 401	ARTH 495
ARTH 402	ARTH 415
ARTH 434	ARTH 267, C234
ARTH 499	ARTH 480
Cinema	
FMAN 202	FMAN 312, CINE C312
FMAN 214	FMAN 314
FMAN 302	FMAN 313, CINE C313
FMAN 316	FMAN 498E
FMAN 319	FMAN 498B
FMAN 352	FMAN 498H
FMAN 402	FMAN 414, CINE C414
FMAN 446, 447	FMAN 445, CINE C436
FMAN 448	CINE C428
FMAN 449	CINE C429
FMPR 231	CINE C311
FMPR 332	CINE C411
FMPR 334	CINE C334
FMPR 335	CINE C335
FMPR 337	CINE C437
FMPR 339	CINE C433
FMPR 341	CINE C333
FMPR 344, FMPR 345	FMPR 336
FMPR 350	FMPR 498F
FMPR 432	CINE C412
FMPR 438	CINE C438
FMPR 442	FMPR 498C
FMPR 446, 447	FMPR 445, CINE C436
FMPR 448	CINE C428
FMPR 449	CINE C429
FMST 200	CINE C200
FMST 211	CINE C211
FMST 212	CINE C212
FMST 214	FMST 314, CINE C426
FMST 215	FMST 315, CINE C427
FMST 217	FMST 398H
FMST 321	CINE C321
FMST 322	CINE C322
FMST 323	CINE C323
FMST 325	FMST 498H
FMST 329	CINE 329
FMST 331	FMST 498E

Course	Old Numbers and Equivalents
FMST 335	FMST 398
FMST 343	FMST 498B
FMST 422	CINE C422
FMST 423	CINE C423
FMST 425	FMST 498J
FMST 426, 427	FMST 425, CINE C436
FMST 428	CINE C428
FMST 429	CINE C429
Contemporary Dance	
DANC 220	DANC 220, C200
Design Art	
DART 200	DESI 200, C200
DART 202	DESI 202
DART 203	DESI 203
DART 210	DESI 230
DART 300	DESI 311
DART 310	DESI 321
DART 400	DESI 411, 431
DART 422	DESI 422
DART 426	DESI 423
DART 424	DESI 424
DART 425	DESI 425
DART 440	DESI 440
DART 499	GDES 499
Faculty of Fine Arts	
FFAR 320	FFAR 399A
Interdisciplinary Studies	
IDYS 200	INRA 300
IDYS 300	INRA 400
IDYS 491	INRA 391
IDYS 492	INRA 392
Music	
EAMT 205	CMUS 310
EAMT 305	CMUS 410
EAMT 350	CMUS 350
EAMT 406	CMUS 446
EAMT 407	CMUS 447
EAMT 451, 452	CMUS 450
INMS 209, 250	MUSI 210 . . . . MUSI C221, C222
INMS 320	INMS C321, C322
INMS 350	INMS 200
INMS 360	CMUS 320 . . CMUS C321, C322
INMS 410	INMS C411
INMS 450	INMS 300
INMS 460	CMUS 420 . . CMUS C421, C422
JAZZ 200	CMUS 200 . . CMUS 498G, 498H
JAZZ 301	INMS 498E
JAZZ 302	INMS 332
JAZZ 305	CMUS 330
JAZZ 401	INMS 431

Course	Old Numbers and Equivalents
JAZZ 402	INMS 432
JAZZ 405	CMUS 430
JPER 220	CMUS 300
JPER 321	CMUS 401
JPER 330	MPER 330
JPER 341	MPER 498L
JPER 421	CMUS 402
JPER 430	MPER 430
JPER 441	MPER 498O
MHIS 311	MHIS C301
MHIS 312	MHIS C301
MPER 201	MPER 200 . . . . . MPER C201
MPER 231	MPER 220, 221 . . . MPER C201
MPER 301	MPER 300, 498 . . . MPER C301
MPER 331	MPER 498K
MPER 332	MPER 320, 498
MPER 370	MPER C431, C432
MPER 390	MPER C330
MPER 401	MPER 400, 498
MPER 431	MPER 498Q
MPER 432	MPER 420, 498
MPER 470	MPER C433, C434
MPER 490	MPER C430
MPER 498A	MPER 431
Painting and Drawing	
ART 261	ART C461
ART 417	ART C420
ART 420	ARTH 267, C234
DRAW 470	ART C436
PTNG 430	PTNG 499A
PTNG 440	PTNG 499B
PTNG 470	ART C436
Printmaking	
PHOT 200	PHOT C201, C301
PHOT 311, 312	PHOT 310
PHOT 321, 322	PHOT 320
PRIN 210	PRIN C200
PRIN 220	PRIN C200
PRIN 230	PRIN C200
PRIN 310	PRIN C300
PRIN 320	PRIN C300
PRIN 330	PRIN C300
PRIN 450	FBRS C440
PRIN 470	ART C436
Sculpture, Ceramics and Fibres	
CERA 230	CAFT C310, C230
CERA 330	CAFT 330
CERA 430	CAFT 430
CERA 450	CAFT C450 / ART C436
FBRS 240	CAFT C240
FBRS 260	CAFT C260
FBRS 340	CAFT C340
FBRS 360	CAFT C360

Course	Old Numbers and Equivalents
FBRS 440	CAFT C440
FBRS 450	CAFT C450 ART C436
FBRS 460	CAFT C460
FBRS 470	ART C440
FBRS 480	FBRS 460 or FBRS 440
SCUL 450	ART C436

Theatre

DFTT 305	SCEN 305
DFTT 315	SCEN 302, C310
DFTT 326	SCEN 322
DFTT 336	SCEN 306
DFTT 337	SCEN 307
DFTT 414	SCEN 411, C410, C400, C420
DFTT 451, 452	DFTT 450
DFTT 498	SCEN 498
DINE 303	DINE 202
DINE 412	DINE C410

Course	Old Numbers and Equivalents
PROD 201	PROD C200, C201
PROD 311	PROD C302
PROD 408	PROD 308
PROD 409	PROD 309
PROD 411	PROD C402
THEA 216	THEA C200, C281
THEA 303	THEA 300, C300
THEA 304	THEA 300, C300
THEA 321	THEA C320
THEA 322	THEA C320
THEA 411	TPER C305
THEA 412	TPER C405
THEA 420	TPER C402
TPER 200	TPER 201, 202
TPER 215	TPER C203
TPER 216	TPER C204
TPER 301, 302	TPER 300 .... TPER 223, 224, 306 & 307
TPER 323	TPER 214
TPER 324	TPER 313
TPER 401, 402	TPER 400 .... TPER 223, 224, 306 & 307
TPER 413	TPER C406, C402

200.6 FACULTY ENGINEERING AND COMPUTER SCIENCE

NOTE: **For old course numbers used prior to 1986-87 see Undergraduate Calendar 1985-86.**

NOTE: **The use of "C" in the course prefix is discontinued. Unless otherwise indicated below, a course previously with a C prefix is equivalent to the identically numbered one without the C prefix.**

Course	Old Numbers and Equivalents
Engineering	
ENGR 211	ENGR 212
ENGR 342	ENGR C341
ENGR 343	CIVI C354
ENGR 344 & 345	CIVI C353
ENGR 401	ENGR 403
ENGR 451	CIVI C491
ENGR 452	CIVI C452
ENGR 455	CIVI C455
Engineering & Computer Science	
ENCS 245	ENGR C245
ENCS 281	ENGR C281
Computer Engineering	
COEN 241	COMP 244
COEN 242	COMP 291
COEN 311	COEN C411
COEN 312	COEN C413
Electrical Engineering	
ELEC 498	ELEC C482
Industrial Engineering	
INDU 323	ENGR 412
INDU 412	INDU 310
INDU 471	INDU 371

Course	Old Numbers and Equivalents
Mechanical Engineering	
MECH 361	ENGR 362
Quality Control	
QUAL 210	QUAL 362
Computer Science	
COMP 220 . COMP 224 & 285	. COMP C221
COMP 245 . COMP 244 & 291	. COMP C241
COMP 292	COMP C251
COMP 294	COMP 391
COMP 295	COMP 392
COMP 296	COMP 393
COMP 297	COMP 394
COMP 325 & 386	COMP C325 & C426
COMP 326	COMP C322
COMP 327 . COMP 325 & 385	. COMP C443
COMP 343 & 385	COMP C443
COMP 353	COMP C453
COMP 392	COMP C341
COMP 423 & 485	COMP C423
COMP 427 & 486	COMP C427
COMP 446	COMP 423
COMP 467	COMP 437

200.7 CREDIT FOR COURSES WITH STATISTICAL CONTENT

Some courses in statistics offered by Departments in the Faculties of Arts and Science, and Commerce and Administration have common elements, but are not necessarily equivalent. A hierarchical order has therefore been established. The possible substitution of courses for each other proceeds from top to bottom of Figure 1.

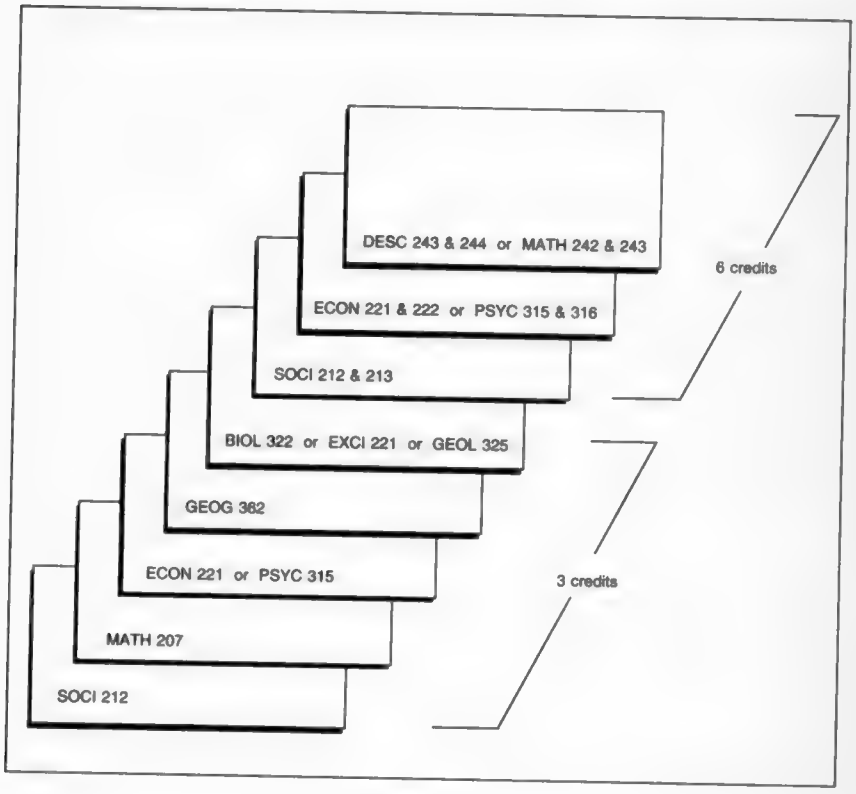
DESC 243 & 244 or MATH 242 & 243
ECON 221 & 222 or PSYC 315 & 316
SOCI 212 & 213
BIOL 322 or EXCI 221 or GEOL 325
GEOG 362
ECON 221 or PSYC 315
MATH 207
SOCI 212
6 credits
3 credits

Figure 1

No course may be substituted for any course which appears in a box above it in Figure 1.

Any six-credit pair of statistics courses may be substituted for any other six-credit pair which is shown in the same box or in a box which is beneath it in Figure 1.

Any six-credit pair of statistics courses may be substituted for any three-credit introductory statistics course.

Any three-credit statistics course may be substituted for any course which is shown in the same box, or in a box which is beneath it in Figure 1.

No more than six credits will be awarded among the six-credit pairs, and no more than three credits will be awarded among the three-credit courses.

awards, prizes and scholarships

300.1 ***CONCORDIA ENTRANCE SCHOLARSHIPS***

300.2 ***CONCORDIA IN-COURSE SCHOLARSHIPS***

300.3 ***AWARDS OFFERED BY ASSOCIATIONS, COMPANIES, FOUNDATIONS, SOCIETIES, AND CLUBS***

section

300

300 AWARDS, PRIZES AND SCHOLARSHIPS

Please note that award recipients may hold only **one** of the following types of awards in a given academic year. Concurrent tenure is disallowed unless expressly authorized by the University Undergraduate Scholarships and Awards Committee.

- Concordia Entrance Scholarships
- Concordia In-course Scholarships
- Concordia In-course Bursaries

300.1 CONCORDIA ENTRANCE SCHOLARSHIPS

Fall and January Entrance Scholarships: A number of scholarships are available to students entering their first year of study and enrolled full-time. These non-renewable $2,000 scholarships are awarded by the University Scholarship and Awards Committee on the basis of academic achievement during the first three semesters of CEGEP or equivalent.
All students submitting an application for admission to Concordia University by March 1 for the Fall Term and November 1 for the Winter Term will automatically be considered for an Entrance Scholarship. Only those students offered an Entrance Scholarship will be notified.

Mature Students Entrance Scholarships: This programme is intended for students admitted to the University as Mature students and enrolled full-time . Application forms are accepted from students who have successfully completed at least 18 credits, but no more than 30 at Concordia University. These non-renewable scholarships are valued at $2,000 per year.

Senior Students Scholarships: A number of scholarships are awarded to students 60 years of age or over. These scholarships have a value of $500 each per academic year and are renewable for a maximum of four subsequent years providing the renewal requirements are met.

The Rona and Irving Levitt Family Foundation Entrance Scholarships: Intended to assist capable students to attend Concordia University, a number of scholarships are available to students entering their first year of full-time study. The scholarships are valued at $1,000 and are not renewable. These are awarded by the University Scholarships and Awards Committee on the basis of academic achievement during the first three semesters of CEGEP or equivalent, and a personal statement provided by the applicant.

The Concordia Shuffle Entrance Scholarships: Established through the participation and generosity of the University community and friends of the University. The Concordia Shuffle consists of a fund-raising Walk-a-Thon between the Sir George Williams and Loyola campuses of Concordia University. A number of entrance scholarships are awarded to students entering their first year of full-time study without restriction to their fields of study. The recipients will be selected on the basis of academic achievement during the first three semesters of CEGEP or equivalent. Mature students may apply after having successfully completed at least 18 credits, but no more than 30 credits at Concordia University.

The Loyola Alumni Association Education Grant: Established to assist deserving students who wish to attend Concordia University. These grants will be issued annually to students who have excelled in their studies leading to their university-level programme. Although the grants are unrestricted, preference will be given to children of members of the Loyola Alumni Association.

Concordia University Memorial Endowment Entrance Scholarships: Established through the generosity of individuals and organizations to honour Professors Matthew Douglass, Michael Hogben, Jaan Saber and Phoivos Ziogas. The Memorial Endowment provides for four annual entrance scholarships. These non-renewable scholarships are awarded by the Undergraduate Scholarships and Awards Committee on the basis of academic achievement during the first three semesters of CEGEP or equivalent.

Richard and Carolyn Renaud Scholarship: Established through the generosity of the Lengvari family, this entrance scholarship is open to a student applying to a Major in Political Science at Concordia University.

Vince Sirois Memorial Scholarship: Established through the generous assistance of Imperial Oil Limited to honour Vince Sirois, former senior vice-president and director, Imperial Oil Limited, and former member of the Board of Advisers, Concordia University, School of Community and Public

Affairs. This award is available to a student entering the School of Community and Public Affairs who, in addition to academic achievement, has demonstrated a commitment to public life. For further details, apply to the Principal's Office, School of Community and Public Affairs.

Departmental Entrance Scholarships

The Institute for Co-operative Education Entrance Scholarship: A scholarship may be awarded to a student registered in the Institute for Co-operative Education. Students are selected by the Principal of the Institute for Co-operative Education in collaboration with the programme directors. Students may study in Accountancy, Building Engineering, Chemistry, Computer Science, Decision Sciences and Management Information Systems, Economics, Exercise Science, French Translation, Mathematics, or Physics.

The Liberal Arts College Entrance Scholarship: Apply to the Principal, Liberal Arts College.

300.2 CONCORDIA IN-COURSE SCHOLARSHIPS

In-course Scholarships are awarded to full-time students (unless otherwise indicated) who have completed at least 24 full-time credits during the previous academic year at Concordia University. Recipients are selected in the summer on the basis of the previous year's academic achievement. The scholarships are paid in the following Fall and Winter semesters. Recipients must maintain their full-time status throughout the year the award is tenable. Unless otherwise indicated, no application is required. Academic performance is reviewed with the Office of the Registrar.

The Administrative Management Society (AMS) Award: Established by the AMS in memory of John Crawford and in honour of past Presidents, this award will be made annually on the basis of academic merit to an undergraduate student in the Department of Education. Interested candidates should contact the Chair of the Department of Education.

The Alain Award in Electroacoustics: Established in 1985, this award is granted annually to the student who demonstrates commitment and ability in the field of electroacoustics. Any student registered in the Electroacoustics programme within the Music Department of the Faculty of Fine Arts is eligible for consideration.

The Allied-Signal Aerospatiale Canada - Bendix Avelex Inc. Scholarship: Open to all full-time students in Mechanical, Computer, Industrial, and Electrical Engineering.

The American Association of Cost Engineers (AACE) Award: Established in 1981 by the AACE. The award has a value of $500, complimentary membership in the AACE, plus a one-year subscription to the *Journal of Cost Engineering.* This award is non-renewable. This award is given annually to a full-time undergraduate student who has achieved the most outstanding performance in a set of three courses related to cost engineering: BLDG 341, BLDG 401, BLDG 491, and whose name appears on the list of potential graduates of the current year or, failing that, to a graduate student who has completed a thesis on a cost engineering topic.

The Arthur Andersen and Company Scholarship: Established in 1976 by the Chartered Accountants firm of Arthur Andersen and Company. Eligibility: Awarded to a Commerce student entering his/her final year and majoring in Accountancy. Students must have a good academic record, and demonstrate leadership qualities in the classroom as well as in student activities.

The Association of Alumni of Sir George Williams University Scholarship: Established in 1988, through the generosity of the Association of Alumni of Sir George Williams University. Eligibility: Open to all full-time students.

The Stacie Lee Bessner Memorial Scholarship: Established in 1978 by the Bessner family in memory of their daughter Stacie Lee. Eligibility: Open to any full-time student in the Faculty of Commerce and Administration.

The Russell Breen Scholarship: Established in 1985 in honour of Dr. Russell Breen for his many years of dedication and service to Loyola College and Concordia University. Eligibility: Open to all full-time students in any faculty.

The Gunther Brink/Petro-Canada Scholarship: Established in 1989 by Petro-Canada in honour of Gunther Brink, a retired faculty member in the Faculty of Commerce and Administration. Eligibility: Open to all full-time students in the Faculty of Commerce and Administration.

Canadian Corporate News Scholarship: Established through the generosity of Canadian Corporate News which distributes news releases to the media and the investment community. Canadian Corporate News also publishes directories under the name of Matthews Media directories. Eligibility: Available to a scholastically deserving full-time undergraduate student pursuing a Major in Journalism.

The Canadian Marconi Company Scholarships: Awarded to students pursuing studies in the fields of electrical and computer engineering.

The Canadian Women's Press Club (Montréal Branch) Scholarship: Established in 1976 by the Canadian Women's Press Club (Montréal Branch) to promote studies in the field of journalism. Eligibility: Open to all students entering the second year of the Journalism programme.

The Al Cauley CJAD Electronic Journalism Grant: Established in 1982 by the CJAD Radio Station to honour long-time Montréal broadcaster Al Cauley. Eligibility: Awarded annually to a second- or third-year student enrolled in the Journalism programme who shows potential for a career in broadcast journalism. The award is made in April and is non-renewable.

The Harry and Grace Colle Scholarship: Established in 1986, through a bequest to Concordia University by Mrs. Grace Colle. The awarding of this scholarship continues the lifelong interest of her and her husband in the education of young individuals. Eligibility: Open to all full-time students.

The Commerce and Administration Students' Association Scholarships: Established by the Commerce and Administration Students' Association, 10 Scholarships are awarded on the basis of scholastic performance and contribution to the Faculty of Commerce and Administration student life. Applications are available from the Financial Aid and Awards Office and must be returned by August 1.

The Compton-Lamb Memorial Scholarship: Established in 1974 in memory of the late Neil Compton and Sidney Lamb, faculty members in the English Department of Sir George Williams University. Eligibility: Awarded annually to a student in the Honours programme of the Department of English. The recipient must be entering the final year of an English Honours programme.

The Concordia University Alumni Association Inc. Scholarship: A special endowment fund was established in 1993 through the generous support of Concordia University Alumni. This fund supports a number of scholarships which are awarded to outstanding full-time students in any Faculty.

The Digital Equipment Scholarship: Established in 1983 by Digital Equipment of Canada Limited. Eligibility: Open to all full-time students in the field of Computer Science.

The Carmine Di Michele Scholarship: Established in 1982 in honour of Carmine Di Michele, a faculty member of the Department of Modern Languages and Linguistics. Eligibility: Open to all students majoring in Italian.

The Faculty of Fine Arts Development Fund Scholarships: The Faculty of Fine Arts offers a number of in-course scholarships, made possible by donations to its Faculty Development Fund. Eligibility: Second- and third-year students in the Faculty of Fine Arts (i.e. those having completed 24 credits or more), and academic achievement.

The Magnus Flynn Scholarship: Established in 1983 to honour Magnus Flynn for his years of devotion to Sir George Williams and Concordia Universities. Eligibility: Granted to a Commerce student with high academic standing, and who has made a strong contribution to student life.

Friends of Concordia Scholarship: Established through contributions from various foundations, corporations, alumnus, members of the University community and friends of Concordia. Eligibility: Awarded, at the discretion of the University Scholarships and Awards Committee, in recognition of academic achievement to undergraduate students without restriction to their field of study.

The Henry Gamer Award for Acting: Awarded to a Fine Arts student majoring or specializing in Theatre and who has completed two years of study in the programme. The award will be given on the basis of scholastic achievement and merit in theatre performance.

The Howard Gilmour Scholarship: Established by Mr. Gilmour's partners at Richter, Usher, and Vineberg, Chartered Accountants. Eligibility: Awarded annually to a Commerce student majoring in Accountancy, and entering the second year of the programme.

The Peter Glasheen Memorial Scholarship: Established in 1986 by friends, associates, and family of the late Peter Glasheen as a tribute to the spirit of his life — a major aspect of which was his abiding commitment to young people, their education and their future. Eligibility: Open to students in the International Business programme, Faculty of Commerce and Administration.

The Cynthia Gunn Journalism Award: Established in 1981 by family and friends to honour the memory of the late Cynthia Gunn, a reporter with The Montréal Star and The Gazette. Eligibility: Open to all prospective journalists enrolled in a third-year Journalism writing workshop.

The Henry F. Hall Scholarship: Established in 1982 by the faculty and staff of Sir George Williams University in recognition of the many years of service given to the University by the late Dr. Henry F. Hall. Eligibility: Awarded annually on the basis of merit to a student in any faculty.

The Hellenic Students' Association Scholarship: Established in 1988 by the Hellenic Students' Association of Concordia University. Eligibility: Open to all Canadian Citizens, Permanent Residents, or International students who can demonstrate Greek ethnic origin by providing an English copy of the applicant's and/or applicant's parents' birth certificates. Candidates must advise the Director of Financial Aid and Awards, in writing, providing their Concordia University I.D. number and supporting documents no later than June 15 for consideration in the following academic year.

The Bill Hunt Memorial Scholarship: Established in 1977 in memory of the late Bill Hunt, a graduate of Sir George Williams University. This scholarship was established by friends and associates from the YMCA where Bill was a social worker. Bill's interest was in the rehabilitation of adolescents who had dropped out of school. Eligibility: Open to all full-time students and is meant to help students who are attempting to re-establish their lives and their education.

The Lucille Irvine Memorial Scholarship: Established in 1967 by Mrs. William Broidy in memory of the late Lucille Irvine, a devoted teacher and former member of the staff of Sir George Williams University. Eligibility: Open to any full-time student in the Department of Psychology upon the recommendation of the Department.

The Ada Israel Memorial Scholarship: Established in 1986 by the family of the late Ada Israel, a student at Concordia University. Eligibility: Open to full-time students in the Philosophy Department who have completed at least 24 credits in Philosophy, and who have made a contribution to the Concordia University Community.

The Leslie and Kaye Jowett Scholarships: Established in 1989 through the generosity of Mr. E. Leslie Jowett, a former Sir George William College student who returned to the University following his retirement and graduated from the Faculty of Fine Arts in 1982. Eligibility: Awarded annually to full-time students without restriction to their field of study.

The Silas Katz Memorial Scholarship: First awarded in 1984, this scholarship was made possible through donations from family, friends, faculty, students and staff, in memory of the late Dr. Silas Katz, professor of Mechanical Engineering. Eligibility: Open to students registered in the undergraduate programme of Mechanical Engineering; consideration will be given to those students who are mature, self-supporting, and who maintain a good academic performance and have completed between 30 and 90 credits. Selection for the award will be made by an Advisory Committee to the Chair, Department of Mechanical Engineering.

Kodak Scholarships: Awarded annually to Cinema and Photography students on the basis of outstanding performance in film production.

The Robert Langstadt Memorial Scholarship: Established by Mrs. Anne Kahane Langstadt in memory of her husband. Anne Kahane and Robert Langstadt were both former professors in the Faculty of Fine Arts. Eligibility: Awarded annually to a full-time undergraduate student majoring in Painting and Drawing and entering his/her second or third year of study in the programme.

The Irving Layton Award for Creative Writing: Established in 1988 by the Department of English, with the support of friends and colleagues, to honour one of Montréal's and Canada's finest poets. Irving Layton's association with Concordia University includes many years as a generous and inspiring teacher, distinctive service as writer-in-residence on several occasions, and as adjunct professor of English. Eligibility: Awarded to students who are completing the last 30 credits of their programme and who have demonstrated excellence in the writing of poetry, fiction, or drama.

Le Château Stores Scholarship: Established in 1976 by Le Château Stores of Canada Limited. Eligibility: Open to all full-time students in the Faculty of Commerce and Administration entering their final year of study and specializing in Marketing.

The Susan Levin-Woods Scholarship: Established in 1988 by Susan Levin-Woods, a graduate of Concordia University. Eligibility: Awarded annually to a Canadian woman who has demonstrated excellence in her studies, and who is pursuing a degree on a full-time or part-time basis while following a career path or bringing up a family. The recipient must have completed 30 credits towards her degree. Application forms are available at the Financial Aid and Awards Office and must be submitted before August 1.

The Liberal Arts College Scholarships: The College administers several scholarships which are awarded annually and range in value from $250 to $1,000:

- The Frances and David Rubin Scholarship;
- The Lois and Stan Tucker Scholarship: Established in the belief that the love of learning and the development of intellectual curiosity constitute the basis for a fulfilled life;

• The Liberal Arts College Entrance Scholarships.
These awards are made possible by donations from friends of the Liberal Arts College, and are based upon high academic performance. Renewal is possible providing the student maintains the criteria for the award. For further information, contact the Principal, Liberal Arts College.

The Magil Construction Ltd. Scholarships: A number of in-course scholarships are available through the generous support of Magil Construction Ltd. Eligibility: Open to all full-time undergraduate students majoring in Civil Engineering, and to students who have completed 35 to 70 credits in the Building Studies programme. The recipients will be selected by the Chair of their respective programmes on the basis of academic excellence.

The Irving Mandel Orchestra Scholarship: Established in 1991 in loving memory of Irving Mandel who was very active in the development of the Loyola Orchestra, this award is given annually to an outstanding Concordia student registered in the Orchestra. The award acknowledges commitment to an accomplishment in the Orchestra.

The Peter Matthews Memorial Scholarship: Established in 1987 by his family to honour the memory of Peter Kent Matthews, who died in 1986. Eligibility: Open to all full-time Computer Science students who have completed a minimum of 30 credits in the programme and are entering the second or final year of their undergraduate programme or entering the first or second year of an MA programme. Selection is made upon the recommendation of a Computer Science faculty member on the basis of academic standing.

The McGrath-Smith Memorial Scholarship: Established in 1981 in memory of the late Warrant Officer P.J. McGrath, RCAF, and Sergeant F.W. Smith, RAF, who gave their lives in combat in 1942. Eligibility: Open to all full-time students and is awarded to the student who attains the highest grade in HIST 203/205.

The McGraw-Hill-Ryerson Limited Scholarship: Established by McGraw-Hill-Ryerson Limited, one of Canada's largest education book publishing companies. The purpose of the scholarship is to recognize that a successful university career is measured through academic achievement and activities that build character, social skills, and a commitment to one's university. Eligibility: Awarded to a third- or fourth-year student who demonstrates academic excellence and active participation in co-curricular and/or extra-curricular activities.

The Norman McLaren Film Animation Scholarship: Established in 1981 by the late Norman McLaren, an animation filmmaker. Eligibility: Open to all students in the Department of Cinema and Photography.

The Helen McNicoll Art Prize: Established in 1975 in honour of the Canadian painter, Helen McNicoll, by Mrs. R. Fraser Elliott. Eligibility: Awarded in alternate years to third-year students in Visual Arts and Art History who have shown exceptional talent.

The James McQueen Scholarship: Established in 1979 by the family of the late James McQueen as a tribute to his interest in education and higher learning. Eligibility: Open to all students in the Faculty of Engineering and Computer Science.

The J. Meloche Inc. Scholarships: Established by J. Meloche Inc., a leading insurance broker, this non-renewable scholarship will be awarded on the basis of academic merit to a full-time undergraduate student from any of the four Faculties who has completed at least 24 credits at Concordia University.

The Garnet Menger Award: Established in 1990 in memory of the notable musician and teacher, Garnet Menger, this award is given annually to an outstanding student in any Department of Music programme. The award acknowledges accomplishment in both academic and student life activities.

The MIX 96 Radio Scholarship: Established in 1989 by MIX 96 Radio to promote studies in the fields of communication studies and journalism. Eligibility: Open to second-year students in Journalism or Communication Studies exhibiting an interest in radio broadcasting.

The John O'Brien Scholarship: Established in 1984 to honour Dr. John O'Brien, first Rector of Concordia University, for his contribution to Sir George Williams and Concordia Universities. Eligibility: Restricted to students entering the Honours programme.

The Political Science Jean H. Picard Foundation Scholarships: A series of scholarships is available to Political Science students. Interested students should contact the Chair of the Political Science Department by January 15.

The P.T.R. Pugsley Memorial Scholarship: Established by friends of the late Professor Pugsley to commemorate his many years of service as senior professor in the Faculty of Commerce and

Administration at Sir George Williams University. Eligibility: Awarded annually to an outstanding student in the Faculty of Commerce and Administration.

The Nicholas Racz Memorial Scholarship: Established by the friends and associates of Nicholas Racz in a tribute to his character and indomitable spirit. In his life he gave much of himself to those around him, and his friends feel that it would be fitting that his sense of caring for others be continued through the implementation of this scholarship. Eligibility: Awarded annually to full-time students, without restriction to their field of study.

The Raymond, Chabot, Martin, Paré Scholarship: Established by Raymond, Chabot, Martin, Paré, Chartered Accountants to encourage and reward outstanding Accountancy students. This award is comprised of a 13-week summer job, offering on-the-job training, plus a scholarship. Eligibility: Awarded to a full-time second-year Commerce student majoring in Accountancy, and conversant in English and French. The scholarship is based on the student's academic performance, top decile ranking in Accountancy courses, and participation in on- or off-campus activities. Application forms are available from the Financial Aid and Awards Office. The deadline is November 30.

The Ian Roberts Memorial Scholarship: Established in 1987 in memory of the late Ian Roberts, founder and President of Ian Roberts Inc. Eligibility: Open to all Commerce students majoring in Marketing and entering their final academic year following the summer work period. The recipient must have completed the "Advertising and Sales Promotion Management" course (MARK 453).

The Anne Savage Memorial Scholarship: Established in the late 1970's in memory of painter and art educator, Anne Savage. Eligibility: Open to all students majoring in Art Education, upon the recommendation of the Fine Arts Faculty Council. Recipients are selected on the basis of artistic and academic achievement, and commitment to the vocation of teaching.

The William Schiff Award: Awarded annually to a senior full- or part-time student of 60 years of age or over who is pursuing a Major in either the Faculty of Arts and Science or the Faculty of Fine Arts. This award is made possible by the generosity of Senior students at Concordia University.

The Stevenson Colour Scholarship: Established by the Stevenson family in memory of David L. Stevenson. Two scholarships are available to students in the Faculty of Fine Arts.

The SR Telecom Scholarship: This scholarship is funded by an endowment provided by SR Telecom Inc. Eligibility: Open to undergraduate students majoring in Electrical Engineering.

The Ruth Louise Vaughan Memorial Scholarship: Established in 1984 by the Vaughan family in memory of its sister and daughter. Eligibility: Awarded annually to a student in the Faculty of Fine Arts.

The Mair Verthuy Scholarship: Established by colleagues and associates to honour Mair Verthuy, a professor at Concordia University. Eligibility: Intended for an undergraduate student majoring in Women's Studies. The recipient must have completed 60 credits with a minimum overall Grade Point Average (GPA) of 3.00; of the completed credits at least 30 must be in Women's Studies, with a minimum Grade Point Average (GPA) of 3.50.

Heather Walker Memorial Scholarship: Established by the Faculty of Fine Arts through the donations of colleagues and friends. Heather Walker was an academic adviser in the Office of Student Affairs of the Faculty of Fine Arts and she represented our best attitude towards students. She graduated with a BFA in Cinema in 1980, and obtained a second BFA in Photography in 1988. Heather pursued successful artistic activities in Photography and was dedicated to humanitarian organizations such as *Families for Children, Development and Peace* and *H.O.P.E.*. Eligibility: Awarded annually to a full-time or part-time student in one of the programmes offered in Cinema or Photography. The recipient is selected on the basis of artistic and academic achievement, and on commitment to humanitarian activities. This award is alternated between Cinema and Photography on an annual basis.

Heather and Erin Walker Humanitarian Award: Established by the Faculty of Fine Arts through the donations of colleagues and friends to honour the memories of Heather Walker and her daughter Erin. An academic adviser in the Office of Student Affairs of the Faculty of Fine Arts, Heather Walker represented our best attitude towards students and both she and Erin were dedicated to humanitarian organizations such as *Families for Children, Development and Peace* and *H.O.P.E.*. Eligibility: Awarded annually to a full-time or part-time student enrolled in a Bachelor of Fine Arts. Selection is based on demonstration of humanitarian service while in pursuit of excellence in academic, artistic, and community service or related endeavours.

The Sean Wall Scholarship: Established in 1992 by his parents, Deanna and Ted, and his brothers, George and Wilder, as a tribute to Sean Wall who was a promising young Film Production student at

Concordia University. Eligibility: Awarded annually to the most outstanding Cinema student entering his/her second year.

The Weldon Scholarship: Established in 1969 through the estate of Richard Laurence Weldon. Eligibility: Awarded annually to a student in the Faculty of Engineering and Computer Science at the discretion of the University Scholarship Committee.

The Zeidan Family Scholarship: Established in 1994 by Mr. and Mrs. Omar Zeidan. Eligibility: Open to all students in the Faculty of Arts and Science. The recipient will be selected on the basis of an essay of approximately 3,000 words on the theme *Arab/Islamic Canadian Relations.* Students interested in submitting an essay must notify the Chair of the Political Science Department by February 1 and present the completed essay to the Chair of the Department by March 1.

The Professor Joseph P. Zweig Scholarship: Established in 1981 in recognition of the contribution of Professor Zweig to Sir George Williams and Concordia Universities in teaching and student services during his 43-year association with both Universities. Eligibility: Awarded on the basis of high scholastic achievement, and a substantial contribution by a student studying in the areas of psychology of fitness, exercise science, and/or behavioral medicine.

The Loyola Foundation Scholarships
Established through the generosity of The Loyola Foundation Inc., the following scholarships are awarded to students who take the majority of their courses on the Loyola Campus.

The Lilley F. Barry Scholarships: In memory of Lilley F. Barry.

The Gordon Bennett Memorial Scholarships: In memory of the late Gordon Bennett.

The Charles J. Brown Scholarship: Donated by William J. Brown in memory of his late father.

The Ursula Carling Scholarship: In memory of Ursula Carling.

The Francis J. Dowling Scholarship: In memory of the late Francis J. Dowling.

The Michael and Patricia Kindellan Memorial Scholarship: Established by the Kindellan family.

Susan Langley Memorial Scholarship: Awarded annually to a full-time student in any field of study.

Loyola Alumni Association Inc. Scholarship: Open to all full-time students in any field of study.

Loyola Evening Students Scholarship: Open to all full-time students in any field of study.

The Loyola News Memorial Scholarship: Awarded annually to a spring graduate who has combined community involvement and a Grade Point Average (GPA) of 3.00.

The Malone Scholarships: Established in honour of Patrick G. Malone, s.j., the President of Loyola College from 1959 until 1975. Eligibility: Awarded to students on the Loyola Campus who have combined high academic achievement with leadership ability, commitment to, and involvement in the student community.

The Kenneth J. McArdle Memorial Scholarship: Donated by Mrs. Mary McArdle and offered to a student in science.

The R.C. Moore Memorial Scholarship: Open to a student who does not already possess a scholarship, is enrolled in either Honours Mathematics or Specialization in Mathematics (formerly Major in Mathematics), and entering third year. Awarded on the basis of marks obtained in Mathematics courses taken during the first and second year.

The Mrs. John Moriarty Scholarship: In memory of Mrs. John Moriarty.

The Winnifred O'Reilly Memorial Scholarship: In memory of Winnifred O'Reilly.

St. Ignatius Men's Association Scholarship: Donated by members of the Association.

The Clarence G. Smith Memorial Scholarship: Established by Mrs. Elizabeth M. Smith in memory of her son.

The George V. Uihlein Jr. Memorial Scholarship: Established in 1977 by the Office of the Dean of Students of Loyola College, in memory of the late George V. Uihlein Jr. for his outstanding contributions to student life.

The James Weber Memorial Scholarship Fund: Established in memory of James Weber. Two scholarships will be awarded annually to students in any discipline on the basis of academic achievement.

Prizes

The Dr. William Henry Atherton Prize: Established from the estate of Dr. Atherton, a prize for research in Canadian history.

The Avon Products of Canada Book Bursary: Donated through Avon Products of Canada.

The Harry Clinch Book Prize: Established in 1982 by friends and colleagues to honour retiring Professor Harry Clinch, founder of the Geography Department. Eligibility: Open to all full-time students in the Geography Department.

The A.G. Hooper Prize: An award for the best essay on English literature written until the end of the seventeenth century.

The MacPhee-MacGuigan Prize: Award of the Loyola English Medal and one hundred dollars for the best essay on literature written in English from the eighteenth to the twentieth century.

The Segal High Book Prize: Awarded to a full-time student in any faculty or course year, on the basis of high academic achievement.

CONCORDIA IN-COURSE BURSARIES

These bursaries are awarded on the basis of financial need and high academic standing. Applications are available in late October at the Financial Aid and Awards Office, and should be returned no later than December 20, unless otherwise stated. The Financial Aid and Awards Office reserves the right to extend the application deadline to ensure that a sufficient number of applications have been received.

The value of each award may fluctuate yearly depending upon current interest rates. Unless stated differently, awards are given to full-time students who are Canadian Citizens or Permanent Residents. If you need additional information, consult the *Guide to Undergraduate Awards and Financial Aid* available from the Financial Aid Office.

All Canadian Football Achievement Bursary: This bursary is granted to an athlete who has at least one year of playing experience with the Concordia University football team. The recipient must have completed a minimum of 24 full-time credits at Concordia with a cumulative Grade Point Average (GPA) of at least 3.30. This award is available to undergraduate or graduate students.

Arab World International In-course Bursary: Established through the generosity of a number of Arab gulf states to assist International students from the Arab world during their studies at Concordia University. Eligibility: Open to deserving International students who can demonstrate citizenship of any member state of the League of Arab States, or who, while stateless, reside in an Arab League state.

The George Balcan Bursary: This award was created through the donations of George Balcan's wife and his friends to mark his birthday in 1991. At the date of creation of this award, George Balcan had spent 25 years as the morning host of CJAD radio. George Balcan is also an accomplished pastel artist and a member of the Canadian Pastel Society. His works have won numerous awards and are included in several significant Canadian collections.

The Joel Jeffrey Birenbaum Memorial Bursary: Established in 1972 in memory of Joel Birenbaum, a former student of Sir George Williams University, and renamed in 1992 in remembrance of Jeffrey Birenbaum, the father of Joel Birenbaum. Eligibility: Open to all full-time students in the Faculty of Arts and Science.

The Birks Family Foundation Bursaries: The Birks Family Foundation has established a plan of annual contributions to the Student Aid Fund of recognized Canadian universities for the creation of the Birks Family Foundation Bursaries. These bursaries are awarded by the Foundation on the recommendation of the Financial Aid Committee. They are not restricted to any faculty or course year and may be renewed. The number and amount of awards may vary annually depending upon the funds available for this purpose from the Foundation.

The Concordia/Bank of Montréal Affinity Card Emergency Bursaries: Established from proceeds received from the Concordia/Bank of Montréal Affinity credit card. These proceeds will be used to support emergency bursaries to financially needy full-time undergraduate students.

The Donald Buchanan Bursary: Established in 1977 by the family of Donald Buchanan. Eligibility: Open to all full-time students.

The Ethel Campbell P.E.O. Memorial Bursary: Established in 1967 by Colin C. Campbell in loving memory of his wife, Ethel May Routledge Campbell. Eligibility: Open to all full-time female students.

The Brenda Carter Memorial Award: Established in memory of Brenda Carter by her husband, Mr. David Wheeler, professor of Mathematics at Concordia University, as well as by friends and colleagues. Brenda Carter was a dedicated educator and elementary school principal until ill-health forced her retirement. Without formal mathematical processes and procedures, and while not a doctrinaire feminist, she very much wanted many more women to find the keen pleasure in mathematics that she found. Eligibility: Awarded annually to a woman registered in a graduate or undergraduate programme in Mathematics. Preference will be given to a candidate who meets some or all of the following criteria:

- demonstrates a proven interest in teaching;
- returned to academic study after an interruption;
- has overcome some particular handicap or obstacle (e.g., in academic background, physical health, financial security);
- is active in a social, political, or professional organization.

The Henry I. Chinks Memorial Bursary: Established in 1965 in memory of the late Henry I. Chinks, Vice-President, Avmor Ltd. Eligibility: Open to all part-time Chemistry students.

The Concordia Bursaries: Established in 1990 by Concordia University, these in-course bursaries are available to Canadian Citizens, Permanent Residents and International students.

The Concordia Shuffle In-Course Bursaries: Established through the participation and generosity of the University community and friends of Concordia. The Concordia Shuffle consists of a fund-raising Walk-a-Thon between the Sir George Williams and Loyola Campuses of Concordia University. A number of bursaries are awarded on the basis of scholastic achievement combined with financial need. These awards are open to undergraduate full-time students in any faculty. Applicants must have completed at least one full-time semester of study at Concordia University.

The Concordia University Alumni Association Inc. Bursaries: A special endowment fund was established in 1993 through the generous support of Concordia University alumni. The fund supports a number of bursaries which are awarded to scholastically and financially deserving full-time students in any faculty.

The J.P. Copland Memorial Bursary: Established in 1972 by the family of J.P. Copland. Eligibility: Open to all full-time students.

The Cecilia Crysler Bursary: Established by family and friends to honour a woman whose own aspirations to attend university were not fulfilled, but who subsequently became a friend and confidante to a decade of Concordia students. Eligibility: Awarded to a needy and deserving woman beginning studies in any field.

The Crane Fund for Widows and Children Bursary: Open to all students in any faculty. Preference will be given to widows or orphans who display financial need.

The Marjorie S. Dewitz Bursary: Established in 1988 by friends and colleagues of Marjorie Dewitz on the occasion of her 70th birthday. Eligibility: Awarded to a full-time female student who is a Canadian Citizen or a Permanent Resident, and who has completed at least 24 credits in her programme of study. Furthermore, the recipient must be pursuing a Double Major, enrolled in Women's Studies and Political Science or combining a Major and a Minor in both disciplines.

The Ecosense and Concordia University Alumni Association Bursary: Established by Ecosense (1978-1991), a non-profit organization which actively promoted care for the environment, recycling, and the rational use and management of resources. Established also through a generous gift from the Concordia University Alumni Association.

The Faculty of Fine Arts Development Fund Bursaries: The Faculty of Fine Arts offers a number of bursaries, made possible by the donations to its Faculty Development Fund. Eligibility: Second-year students in the Faculty of Fine Arts (i.e. those having completed 24 credits or more), and financial need.

Film Production Grants: A number of bursaries in film production are offered through the Department of Cinema, Faculty of Fine Arts.

The Professor James Gilchrist Finnie Bursary: Established in 1976 by faculty and staff of Sir George Williams University, former students, colleagues, and business friends, in recognition of his many years of devoted service to the University. Eligibility: Awarded annually, on the basis of merit and/or need, to undergraduate students majoring in Accountancy, and entering their final year.

The Peter Glasheen Memorial Bursary: Established in 1986 by friends, associates, and family of the late Peter Glasheen as a tribute to the spirit of his life, a major aspect of which was his abiding commitment to young people, their education and their future.

The Maurice Gold Memorial Bursary: Established by family, friends, and colleagues of Dr. Maurice Gold, a former faculty member of the Department of Accountancy. Eligibility: Granted to an Accountancy major who is deserving, both academically and financially.

The Abe Gordon - Dalse Club of Montréal Bursary: Awarded to a deserving Canadian Citizen or Permanent Resident pursuing full-time studies. Eligibility: Open to any student following the Judaic Studies programme in the Department of Religion.

The Ellen Greenwood Ornstein Memorial Bursary: Established in memory of Ellen Greenwood Ornstein by her family through The Henry and Bernice Kaufman Foundation. Ellen Greenwood Ornstein graduated from the University in 1972. This bursary is awarded to a scholastically and financially deserving student in any faculty.

The Ernest Haznoff Memorial Bursary: Established in 1964 in memory of Ernest Haznoff (BSc 1959). Eligibility: Open to all full-time Philosophy Major or Honours students.

The F.P. Higgins Memorial Bursary: Established by the late Francis Philip Higgins. Eligibility: Awarded to a francophone undergraduate student in any faculty who shows scholastic achievement and is financially needy.

The Ralph B. Hood Memorial Bursary: Established in 1973 by the late Ralph B. Hood, with the intention of assisting needy and deserving young students. Eligibility: Open to all full-time students.

The Institute of Chartered Secretaries and Administrators in Canada Québec Branch Bursary: This award is available to all undergraduate students majoring in Administration.

The John Jackman Bursary: Established by Mrs. Beth Swayne Jackman in memory of her husband, John Jackman, a former student in the Faculty of Fine Arts. Eligibility: Awarded annually to a student majoring in a visual arts discipline relating to studio art practice. The award will be given on the basis of scholastic achievement, demonstration of talent in the discipline of study, and financial need.

Japanese-Canadian Bursary: Established in 1984 in memory of Japanese-Canadians who served in the Canadian Forces in World War I and II. Eligibility: Awarded to a needy and deserving student in any faculty.

The Arianne Johnston - Kip Little Memorial Bursary: Established in 1992 by family and friends in memory of Arianne Johnston and Kip (Christopher) Little, former English students at Concordia University. Eligibility: Open to all full-time students in the English Department. Every second year, the bursary will be given to a Mature student.

The Joseph Gilbert Joyce Memorial Bursary: Established in 1967 in honour of the late Reverend Joseph Gilbert Joyce who, during his 24-year ministry at Verdun United Church, maintained a deep interest in the Evening Division of the University. This bursary was established in accordance with his conviction that knowledge and higher education be available to those who seek to make a creative contribution to the development of humanity. Eligibility: Awarded to a part-time student in any faculty or course year on the basis of academic standing, financial need, and promise in the student's chosen field of study.

The Bruno and Stella Lebel Fine Arts Bursary: Established in 1981 in memory of the late Bruno and Stella Lebel. Eligibility: Awarded to a student in the Faculty of Fine Arts on the basis of financial need and high academic standing.

The Jack Lehman Bursary: Established in 1987 by the friends of Jack Lehman on the occasion of his 60th birthday. Eligibility: Open to all first-year students in the Ceramics section of the Department of Sculpture, Ceramics and Fibres.

The Graham Marks Memorial Award: Established in memory of Graham Marks who, after spending a lifetime building a successful retail business, returned to University to complete a degree in Applied Social Science and entered the counselling profession. Eligibility: Open to part-time students who show promise in their studies but are financially unable to attend the seminar programme of the Centre for Human Relations and Community Studies.

McDonald's Restaurants of Canada Limited Bursary: Established in 1988, this bursary is awarded annually to an undergraduate Commerce student who is deserving both academically and financially.

The S.H. McNeilly Bursary: Established in 1963 by Mrs. Mary McNeilly in honour of her late husband, S.H. McNeilly. Eligibility: Open to all part-time students who can prove employment with the Canadian Pacific Railway Company.

The MIX 96 Radio Bursaries: Two bursaries will be awarded annually to one female and one male student in the Communication Studies or Journalism programmes. Eligibility: Recipients will be selected on the basis of academic achievement and financial need.

The Louis Muhlstock Drawing Prize: Awarded to a full-time undergraduate Fine Arts student who is majoring in Painting and Drawing. Eligibility: Given to a student enrolled in one of the 300- or 400-level drawing courses on the basis of artistic talent.

The Nathan H. Messer Bursary: Established in 1971 by business associates and clients of Nathan H. Messer on the occasion of his retirement. Eligibility: Two bursaries are awarded annually to needy, worthy students entering their final year and majoring in Accountancy, Faculty of Commerce and Administration.

The Donald L. Peets Bursary: Established in 1990 in recognition of the contributions made by Donald L. Peets to student life and services during his many years of association with Sir George Williams and Concordia Universities as a teacher and administrator. Eligibility: Open to all full-time students in the Biology Department.

Myer F. Pollock Bursary: Established in 1971 by Mrs. Bess Pollock on the occasion of the 60th birthday of her husband, Myer. Eligibility: Open to all students in the Faculty of Engineering and Computer Science.

The Theodore Ronis Memorial Bursary: Established through the National Council of Jewish Women of Canada in memory of the late Theodore Ronis. This bursary was established by his friends to perpetuate the memory of his friendship. Eligibility: Awarded annually to a deserving student studying (preferably, but not necessarily) towards a BComm degree.

The Royal Albert Lodge Bursary: Awarded to a) children of members of the Royal Albert Lodge or b) children of members of other Masonic Lodges. If neither a) nor b) qualify, any worthy student may apply and receive this bursary at the discretion of the Bursary Selection Committee.

The St. Andrew's Society Bursary: Established in 1971 by the St. Andrew's Society of Montréal. Eligibility: Open to all full-time students. Applicants will be required to demonstrate proof of Scottish birth or ancestry.

James Saya Memorial Bursary: Established in 1991 by the Contemporary Dance Department in memory of a colleague and friend. The bursary will be awarded annually to a full-time undergraduate student majoring in Contemporary Dance and entering his/her second or third year of study in the programme.

The Senior Students Entrance Bursary: Awarded annually to a first-year undergraduate student in any Faculty. The bursary is renewable twice for a maximum tenure of two years, provided the recipient maintains his or her full-time status and achieves a Grade Point Average (GPA) of no less than 3.00. This award is made possible by the generosity of Senior students at Concordia University.

The Jeffrey David Skowronski Dramatic Arts Bursary: Established in 1988 by the Skowronski family in memory of their son, Jeffrey David. Eligibility: Awarded annually to a full-time undergraduate student who is majoring in Theatre.

The Walter Stenhouse Bursary: Established in 1964 by Mrs. E. Pavey and Mrs. J. Tombs, under the auspices of The Arts Club of Montréal, to honour Walter Stenhouse. Eligibility: Awarded to a student entering his/her final year in the Faculty of Fine Arts.

The 3M Canada Inc. Bursary: This award is based on satisfactory standing and demonstrated financial need, and is open to all full-time students in the Faculties of Commerce and Administration, and Engineering and Computer Science.

University Women's Club of Montréal Bursary: The University Women's Club of Montréal Public Foundation offers two bursaries of $1,000 each, to mature women who are enrolled in full-time undergraduate study at Concordia University. At least one recipient will be a Native woman. Eligibility: Awarded to students who have completed preferably two years in an undergraduate programme. Both financial and academic standing are considered when determining the successful candidates. Application forms are available at the Financial Aid and Awards Office and must be submitted by April 1.

The Jean Paul Vallée/Royal LePage Bursary: Established in 1987 by family, friends, and associates to honour the late Jean Paul Vallée. Eligibility: Awarded annually to a deserving and needy full-time undergraduate Commerce student.

Frank B. Walker Journalism Awards: Established to honour the memory of the late Frank Walker (1916-1985), editor-in-chief of *The Montreal Star* from 1968 to the paper's close in 1979. Eligibility: Two awards are made available to deserving students in the Department of Journalism to encourage and recognize excellence in writing. One award is available to a student completing first year, and another to a student completing second year of the Journalism programme.

300.3 AWARDS OFFERED BY ASSOCIATIONS, COMPANIES, FOUNDATIONS, SOCIETIES, AND CLUBS

The awards listed in the following section are sponsored and administered by external associations, companies, foundations, societies, and clubs. Applications go directly to the organization administering the award, unless otherwise noted.

Bell Canada Bursaries: Seven renewable bursaries are available for Québec and Ontario. Candidates must be children of a permanent employee, a retired employee, or a deceased employee (if employed with Bell Canada at the time of death). The recipient must have maintained a Grade Point Average (GPA) of 3.70 for the previous two years of university studies in a degree-granting programme. For further information and applications, write to the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1.

The Henry F. Bennett Education Fund: The purpose of this fund is to make loans to deserving students in need of financial assistance to enable them to study Engineering at the university level and who have proved themselves by successfully completing their first year in Engineering or the equivalent. Apply to the Engineering Institute of Canada, 280 Albert Street, Suite 202, Ottawa, Ontario, K1P 5G8.

The Birks Family Foundation Scholarship Plan: Tuition scholarships are available to students who are children of employees of Birks. For further information, contact the Birks Family Foundation.

The Cal Callahan Memorial Bursary: Each year the Pipeline Contractors Association of Canada offers bursaries, totalling $2,000, to children or legal wards of persons who derive their principal income from the Pipeline Industry, and whose employers are members of this Association. Applications may be obtained from the Pipeline Contractors Association of Canada, Suite 720, 5915 Airport Road, Mississauga, Ontario, L4V 1T1. The deadline for application is September 30. Applications must be accompanied by proof of registration in a Canadian university.

Canadian-Chinese Cultural Society of Montréal Inc. Scholarship: The Canadian-Chinese Cultural Society of Montréal Inc. offers an annual scholarship to a full-time university student in Montréal who is interested in Chinese culture, has achieved an above-average standing, and has participated enthusiastically in extra-curricular activities. Application forms are available from the Financial Aid and Awards Office or from the Canadian-Chinese Society of Montréal Inc., 1117 St. Catherine Street West, Suite 706, Montréal, Québec, H3B 1H9. The application deadline is February 28.

Canadian Italian Business & Professional Men's Association: Bursaries are awarded by the Association to students of Italian origin or descent. Apply to the President, Trust Fund Committee, Suite 350, 6020 Jean-Talon Street East, Montréal, H1S 3B1.

Celanese Canada Ltd.: Several entrance scholarships in any course leading to a baccalaureate degree are offered to the children of employees or annuitants of Chemcell or its subsidiary companies. Further information and application forms should be requested directly from the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1. Completed forms, in triplicate, are to be sent directly to the same address to arrive no later than June 1.

Consumer Glass Company Limited University Education Awards Plan: Open to children or wards of employees and retired employees of Consumer Glass Company Limited for a full-time course of study in any Canadian university or college recognized by the Association of Universities and Colleges of Canada. These scholarships are renewable for a maximum of four academic years or until a first degree is obtained, whichever occurs first. Awards are automatically renewed providing the student establishes continued eligibility and successfully completes the previous academic year. Further information and application forms may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1.

Continental Insurance Companies (Canadian Scholarships Plan): University entrance scholarships in courses leading to a baccalaureate degree may be applied for by the natural children or adopted children, stepchildren, or legal wards of employees of one of the Continental Companies operating in Canada. Further information and application forms may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1. Completed applications should arrive no later than June 1.

Culinar Inc.: Bursaries are awarded to dependent children of active employees of Culinar Inc. (with a minimum of two years with the company). The applicants must be at least 21 years of age and have completed the last two years of CEGEP studies within 24 months, with a Grade Point Average (GPA) of 3.30 for each year. For information and application forms, contact the Human Resources Department, Culinar Inc., Suite 2700, 2 Complexe Desjardins, Montréal, H5B 1B2. Applicants must submit CEGEP transcripts, reference letters, and any other relevant documents prior to June 2.

The Elizabeth Greenshields Foundation: Grants are available to assist talented young artists (painting, drawing, printmaking, sculpture) in the early stages of their careers. Applicants must be under 31 years of age, and their work must be representational — the Foundation's Charter precludes abstract art. (Candidates may hold citizenship in any country.) Contact The Elizabeth Greenshields Foundation, 1814 Sherbrooke Street West, Montréal, H3H 1E4.

Gulf Oil Canada Limited: Several university entrance scholarships are awarded annually to the children (natural or adopted) of employees and annuitants of Gulf Oil of Canada and its subsidiary companies in Canada. Further information and application forms should be requested from the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1. Completed applications should arrive no later than June 1.

The C.J. Hewitt Bursaries: A number of bursaries are available from the estate of the late C.J. Hewitt. Preference will be given to members of the families of employees of Hewitt Equipment Limited in Montréal. For further information, contact the Personnel Office, C.J. Hewitt Equipment Limited.

Hungarian-Canadian Engineers Association Student Trust Fund: Scholarships and bursaries are awarded by the Association to students of Hungarian origin or descent. Applications are evaluated on the basis of scholastic achievement, character, career plans, and financial need. Information and application forms can be obtained by writing to the Hungarian-Canadian Engineers Association, 5521 Randall Avenue, Côte St-Luc, Québec, H4V 2V7.

Iron Ore Company of Canada (Scholarship Plan): A limited number of entrance scholarships for study towards a first degree are offered to children or wards of employees, annuitants, or deceased annuitants of the parent or subsidiary companies. Further information and application forms should be requested from the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1. Completed forms, in triplicate, are to arrive no later than June 1.

La Fondation Girardin-Vaillancourt: This award is offered to a Canadian Citizen and resident of the Province of Québec. Applicants must be registered in, or intend to register in, a full-time university programme in one of the following disciplines: co-operatives, economics, finance, administration, science, or arts. Information and application forms may be obtained at the Financial Aid Office, and must be submitted to La Fondation Girardin-Vaillancourt, Succursale Desjardins, Montréal, H5B 1B2. The deadline is March 1.

Lebanese-Syrian-Canadian Association Scholarships: A number of scholarships are awarded annually to students of Lebanese-Syrian descent. For information and applications forms, contact the Chairman, Scholarship Committee, Lebanese-Syrian-Canadian Association, 40 Jean-Talon Street East, Montréal, H2R 2W5.

Leonard Foundation Scholarship: Preference in the selection of students shall be given to children of clergymen; schoolteachers; Officers, non-commissioned Officers, and men (active or retired) who have served in Her Majesty's Military, Naval, or Air Forces; graduates of the Royal Military College of Canada; members of the Engineering Institute of Canada; and members of the Mining and Metallurgical Institute of Canada. Apply to the Senior Trust Officer, Canada Trust Company, 20 Eglinton Avenue West, Toronto, Ontario, M4R 2E2, prior to March 31.

The Montréal Lakeshore University Women's Club: Two bursaries are available from the Lakeshore University Women's Club, valued at $800 each. (1) The Undergraduate Bursary is available to a female resident of the West Island of Montréal who is enrolled in university for the purpose of studying towards an undergraduate degree. (2) The Continuing Education Bursary is available to a female university graduate who is returning to university to further qualify in a particular field. Financial need and academic standing are factors considered in determining the recipients.

Québec Cartier Mining Company: A limited number of four-year or first-degree entrance scholarships are offered to candidates whose parents or legal guardians have been employees of the Québec Cartier Mining Company for at least four years. Further information and application forms may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1.

The Queen Elizabeth Silver Jubilee Award: This award is offered to young Canadians wishing to pursue studies in their second official language. Candidates must be Canadian Citizens or Permanent Residents, and must have successfully completed at least one year of a university programme prior to the year of the award. In addition, they must demonstrate sufficient ability to carry out disciplinary studies in their second language. Candidates must apply to the Financial Aid office no later than February 1. Only one candidate per institution will be nominated.

St. Laurent Cement Inc.: Applicants must be dependent children of a current or retired employee, or of an employee who died while employed by the company. Candidates must have maintained a Grade Point Average (GPA) of 3.00 in the last three years of study leading to a university degree. For information and application forms, write to the Bursary Programme, Personnel Services, St. Laurent Cement Inc., 1945 Graham Blvd, Town of Mount Royal, Québec, H3R 1H1. The deadline for applications is June 25.

Robert and Mary Stanfield Foundation Undergraduate Bilingual Exchange Scholarships in Canadian Studies: In order to improve understanding between French-speaking and English-speaking Canadians, this scholarship is intended to assist the winners in their ongoing studies relating to Canada, its cultures, people, and institutions, and to encourage their personal development. Fields of study include: Canadian Northern studies, Canadian Plains area studies, French-Canadian studies, Native studies, Canadian politics and history, Canadian urban studies, and Canadian literature. Candidates must be enrolled in their second or third year of university studies. Preference will be given to students planning to attend a university in another province. The language of study shall be French in the case of English-speaking winners and English in the case of French-speaking winners. For further information and application forms, contact the International Relations and Scholarship Administration, Canada Awards Office, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1. The deadline is February 1.

Teleglobe Canada Undergraduate Scholarships Programme: A university entrance scholarship is offered to the children (natural or adopted) of parents or guardians who are full-time employees or pensioners of Teleglobe Canada with at least one year continuous service. Further information and application forms should be requested from the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1. Completed applications should arrive no later than June 1.

Texaco Canada Merit Scholarship Programme: Several entrance scholarships tenable for up to a maximum of the first four years of undergraduate study may be applied for by the dependent children (natural or legally adopted) of employees or annuitants or deceased annuitants of Texaco Canada. Application forms may be obtained by employees of Texaco Canada from their supervisor. Completed applications, in triplicate, must be sent to the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1 no later than June 1.

Disabled Students

The Québec Federation of the Blind Inc. Bursary: Bursary assistance is awarded to registered blind students or their parents. Application must be made to the Activities Coordinator, Québec Federation of the Blind Inc., Room 115, 7000 Sherbrooke Street West, Montréal, Québec, H4B 1R3.

The Edward G. McLean Memorial Scholarship: The Lions Club of Montréal (Central) has established a scholarship fund to honour one of its most dedicated and beloved members, the late Edward G. McLean, Past Lion District Governor. Eligibility: Awarded annually to a deserving disabled student. Academic excellence is not the sole criterion of selection. Other attributes will be considered such as motivation, unusual talents, degree of impairment, and financial need. Application forms are available at the Financial Aid Office. The application deadline is March 31.

The National Bank of Canada Bursaries and Summer Employment Programme for Disabled Students: This programme is designed to encourage young Québec students with physical or sensory disabilities to pursue college- and university-level studies, as well as to enable them to acquire work experience related to their studies. Eligibility: Applicants must have a physical or sensory disability, as certified by a medical practitioner. Employees of the Bank, and persons living with them, are not eligible. Application forms are available at the Financial Aid Office and must be submitted directly to the National Bank by December 1.

Imasco Bursaries for Disabled Students (AUCC Affiliated): Applicants must be Canadian Citizens and considered to be disabled according to the 1975 United Nations declaration. Students must be registered in an institution recognized by the Association of Universities and Colleges of Canada (AUCC). Employees of Imasco or its affiliates are not eligible. For information, write to the Director of Awards, Association of Universities and Colleges of Canada, 350 Albert Street, Suite 600, Ottawa, Ontario, K1R 1B1. The deadline for application is June 1.

The Rixon Rafter Bursary for the Blind: Established by the late Rixon Rafter, a number of bursaries are available to legally blind Canadians who are pursuing post-secondary studies and wish to pursue a professional career. Applications forms are available from, and must be returned to, the Rixon Rafter Scholarship Committee, The W. Ross MacDonald School, Brantford, Ontario, N3T 3J9. The deadline for application is September 30.

The Carol Thomson Memorial Scholarship: An award of two hundred dollars will be presented to an individual with learning disabilities attending a Canadian institution on a full-time basis. For more information, potential applicants can contact The Learning Disabilities Association of Canada, 323 Chapel Street, Suite 200, Ottawa, Ontario, K1N 7Z2. The deadline for application is May 15.

Awards

Imperial Oil Higher Education Awards: Imperial Oil offers annual tuition and other compulsory fees to all children or wards of its employees or annuitants who proceed to higher education courses. These courses may be taken at any Canadian university or other approved institution of higher learning. Each award is tenable until the completion of a first degree or for a maximum of four years. Further information and application forms may be obtained from the Secretary, Committee of Higher Education, Imperial Oil Limited, 111 St. Clair Avenue West, Toronto, Ontario, M4V 1N5. Eligibility: A student must maintain an average of 70% or more in the year upon which the application is based.

A. Ross Seaman Memorial Scholarships: The memorial fund was established in 1987 to honour the memory of A. Ross Seaman for his lifelong dedication to the communities of Concordia University, Dawson College, Kamp Kanawana, and the YMCA. Every year, students from these four institutions are recognized for their leadership and scholarship. Students can apply or be nominated. Application information is available from the Departments of Applied Social Science and Leisure Studies at Concordia University.

The Terry Fox Humanitarian Award: Applicants must be Canadian Citizens or have applied for citizenship, and must be duly registered in a Canadian university or college. Selection criteria for recipients are based on demonstration of the highest ideals and qualities of citizenship and humanitarian service while in pursuit of excellence in their academic, amateur sport, fitness, health, community service, or related endeavours. Information and application forms are available from the Financial Aid Office or by writing to the Terry Fox Humanitarian Award Programme, Suite 771, 151 Sparks Street, Ottawa, Ontario, K1P 5E3. The deadline for submission of applications along with supporting documentation is February 1.

The Queen Elizabeth Silver Jubilee Award (AUCC Affiliated): This award is offered to young Canadians wishing to pursue studies in their second official language. Candidates must be Canadian Citizens or Permanent Residents, and must have successfully completed at least one year of a university programme prior to the year of the award. In addition, they must demonstrate sufficient ability to carry out disciplinary studies in their second language. Candidates must apply to the Financial Aid office no later than February 1. Only one candidate per institution will be nominated.

graduate programmes

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400 GRADUATE PROGRAMMES

Dean
MARTIN I. KUSY

Associate Deans
DOROTHY MARKIEWICZ
CLAUDE BÉDARD

Executive Secretary to the Council of the School of Graduate Studies
ROBERT KAVANAGH

Location

School of Graduate Studies
1455 de Maisonneuve Blvd. West
Montréal, Québec
H3G 1M8

The office is located at:
2145 Mackay Street
(514) 848-3800

SCHOOL OF GRADUATE STUDIES

The graduate programmes offered by the University are divided into doctoral, master's and diploma programmes. Doctoral programmes offer students the opportunity to carry out fundamental and applied research. The results of this research are presented in the form of a thesis containing an original contribution to knowledge. Doctoral theses are defended in public examinations.

The length and specific format of a doctoral thesis is discipline dependent. All doctoral programmes require the passing of comprehensive examinations and a minimum of 90 credits of study. At the master's level, the University offers a variety of thesis and non-thesis options. All master's programmes require a minimum of 45 credits. Some master's programmes also have a comprehensive examination.

The academic goals of the graduate diploma programmes are somewhat different from those of doctoral and master's programmes. They are designed either to offer a further specialization in a field or discipline already studied at the undergraduate level, or they provide the introduction to a new field of study or discipline, with the express intent to develop some level of specialized knowledge. A graduate diploma consists of a minimum of 30 credits and normally a maximum of 33 credits. Diploma programmes do not require a thesis, although a graduating essay, project or report may be required. Diploma programmes may require a comprehensive examination.

With the exception of the special individualized doctoral and master's programmes and the Humanities doctoral programme, all graduate programmes offered by the University are administered by a particular academic department in one of the four Faculties of the University, under the general supervision of the Council of the School of Graduate Studies and its chair, the Dean of Graduate Studies. All graduate programmes are described in the School of Graduate Studies Calendar. Each description outlines the full-time faculty involved in the programme, the objectives of the programme, and the research interests of the faculty. Admission requirements, application procedures, degree requirements and programme options are specified. In most cases, courses are given in the late afternoon and evening, or in the evening only, making it possible for both full-time and part-time students to attend. Please contact the graduate programme director at the number indicated for further information.

Effective June, 1994, students may choose to receive their degrees in either the new gender neutral nomenclature of Baccalaureate, Magisteriate, and Doctorate or the traditional nomenclature of Bachelor, Master, and Doctor.

Department of Applied Linguistics
MA — John A. Upshur (Acting) 848-2446

Department of Applied Social Science
MA — James F. Gavin 848-2264

Department of Art Education and Art Therapy
MA & PhD (Art Education) — David Pariser 848-4787
MA in Art Therapy — Abby Calisch 848-4785
Diploma in Art Education — Andrea Fairchild 848-4642

Department of Art History
MA — Brian Foss 848-4700

Department of Biology		
MSc & PhD	Narinder N. Kapoor	848-3403
Diploma in Ecotoxicology	Perry Anderson	848-3391
Centre for Building Studies		
MASc, MEng & PhD	Dorel Feldman	848-3202
Department of Chemistry and Biochemistry		
MSc & PhD	Zacharias Hamlet	848-3373
Diploma in Ecotoxicology	Perry D. Anderson	848-3391
Department of Civil Engineering		
MASc, MEng & PhD	Mamdouh M. El-Badry	848-7818
Faculty of Commerce and Administration		
MBA	Alan Hochstein	848-2773
Executive MBA	Kamal Argheyd	848-2917
AMBA (Airline and Aviation)	Dale D. Doreen	848-3695
MSc (Administration)	Lorne Switzer	848-2960
PhD (Administration)	Lorne Switzer	848-2960
Diploma in Accountancy	Gail Fayerman	848-2774
Diploma in Institutional Administration	Clerence Bayne	848-2976
Diploma in Sports Administration	George D. Short/	848-3334
	Clarence Bayne	848-2976
Department of Communication Studies		
MA (Media Studies)	Kim Sawchuk	848-2557
PhD (Communication)	Martin Allor	848-2548
Diploma in Communication Studies	Nikos Metallinos	848-2536
Department of Computer Science		
MCompSc & PhD	R. Jayakumar	848-3011
Diploma in Computer Science	Tao Li	848-3038
Department of Economics		
MA & PhD	T.B.A.	848-3938
Diploma in Economics	T.B.A.	848-3938
Department of Education		
MA (Educational Studies)	Arpi Hamalian	848-2014
MA (Educational Technology)	Gina Walker	848-2043
PhD (Educational Technology)	Robert Bernard	848-2027
MA (Child Studies)	Larry Prochner	848-2038
Diploma in Adult Education	Riva Heft	848-2015
Diploma in Early Childhood Education	Larry Prochner	848-2038
Diploma in Instructional Technology	Mariela Tovar	848-2022
Department of Electrical and Computer Engineering		
MASc, MEng & PhD	Otto Schwelb	848-3084
Faculty of Engineering and Computer Science		
MEng (Aerospace)	J.V. Svoboda	848-3150
Department of English		
MA	Gerald M. Auchinachie	848-2333
Département d'études françaises		
Diploma in Translation	Sherry Simon	848-7507
Faculty of Fine Arts		
MFA	Barbara Layne	848-4608
Diploma in Advanced Music Performance Studies	Sherman Friedland	848-4713
Department of Geography		
MA (Public Policy and Public Administration Geography Option)	Robert Aiken	848-2051

Department of History		
MA & PhD	Graham Carr	848-2403
Humanities Programme		
PhD	Sherry Simon	848-2096
Department of Journalism		
Diploma in Journalism	Lindsay Crysler	848-2468
Library Studies		
Diploma in Library Studies	Marlene Giguère	848-2527
Department of Mathematics and Statistics		
MA, MSc & PhD	Syed Tariq Ali	848-3237
MTM (Master/Magisteriate in the Teaching of Mathematics)	Anna Sierpinska	848-3239
Department of Mechanical Engineering		
MASc, MEng & PhD	Tadeusz H. Krepec	848-3151
Department of Philosophy		
MA	Andrew Wayne	848-2502
Diploma in Theological, Religious & Ethical Studies	Sheila McDonough	848-2074
Department of Physics		
MSc & PhD	Mariana Frank	848-3283
Department of Political Science		
MA (Public Policy and Public Administration)	Ronald C. Coyte	848-2105
Department of Psychology		
MA	Donna White	848-7542
PhD	Michael von Grunau	848-2190
Department of Religion		
MA (History and Philosophy of Religion)	Sheila McDonough	848-2074
MA (Judaic Studies)	Norma Joseph	848-2078
PhD	Frederick B. Bird	848-2070
Diploma in Theological, Religious & Ethical Studies	Sheila McDonough	848-2074
Department of Sociology and Anthropology		
MA (Cultural Anthropology)	Brian Petrie	848-2161
MA (Sociology)	Brian Petrie	848-2161
Department of Theological Studies		
MA (Theological Studies)	Sean McEvenue	848-2479
Diploma in Theological, Religious & Ethical Studies	Sheila McDonough	848-2074
Special Individualized Programmes (S.I.P.)		
MA & PhD	Dorothy Markiewicz	848-3889

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